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TECHNICAL REPORT  
NATICK/TR-84/044

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**STUDY OF THE CAPABILITY  
OF THE UNITED STATES  
TEXTILE AND APPAREL  
INDUSTRIES TO SUPPORT  
NATIONAL DEFENSE  
VOLUME 2  
Appendix**

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BY  
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ATLANTA, GA 30361**

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**INDIVIDUAL PROTECTION LABORATORY**

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The objective of this project is to determine the national defense requirements for textiles and clothing and the impact these requirements will have on the United States industrial capabilities in a peacetime or wartime environment. A further objective is to define the role Natick R&D Center should take to meet research and development requirements of the military services which are not expected to be met by the United States textile/apparel industry.  Volume 1 of the report indicates that, in general, sufficient capability exists			

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in both the textile and apparel industries to meet the mobilization requirements of the three unclassified scenarios in the report. However, several weaknesses were identified that could become critical, especially under full mobilization conditions. These weaknesses are:

- Sole source proprietary fibers;
- Very heavy duck fabrics used in tents, tarpaulins and vehicle upholstery;
- Foreign sole source chemicals related to fire, water, weather, and mildew resistance (FWWMR); infrared reflectance (IR); and colorfastness;
- Foreign source sewing needles.

Also, the report recommends that all DoD clothing and individual equipment research and development activities be consolidated at the Natick R&D Center.

Volume 2, Appendix, provides documentation information

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# PREFACE

This study illustrates the variables involved in analyzing military textile and apparel requirements for mobilization. The study addresses the multiple issues of procurement, planning, sourcing, logistical constraints, industrial base response, and research and development in the context of the strategic nature of textile and apparel. This is not a technical document to describe any particular process of either the textile or apparel industry, though we are significantly indebted to numerous individuals, agencies, and organizations in both industrial and government areas of technical assistance.

Kurt Salmon Associates, Inc. (KSA) received a contract award from the Directorate for Procurement, Army Natick Research and Development Laboratories (now U. S. Army Natick Research and Development Center) to perform the Study of the Capability of the United States Textile and Apparel Industries to meet Armed Forces Requirements in Support of National Defense (see volume 1 in this series, NATICK/TR-84/043). The contract approval for this study was awarded 30 September, 1981 with a contract number DAAK60-81-C-0153. The project officer was Laurance Coffin.

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## LIST OF STUDY END-ITEMS

[illegible]



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# APPENDIX B LIST OF STUDY TEXTILE COMPONENTS BY SPECIFICATION

## BLEND

### BLEND

Spec	Description	# Occurrences	Spec	Description	# Occurrences
MIL-C-823	Cloth, Serge; Wool, Wool & Nylon; Poly & Wool	22	CCC-C-476	Cloth, Bunting, Nyl; and Nyl and Wool	1
MIL-C-21115	Cloth, Tropical, Wool, Poly/Wool	15	LPP-DES13-80	Cloth, Interlining, Laminated Waterproofing, WIP Flame Resistant	1
MIL-C-43718	Cloth, Twill, Poly: Poly/Ctn; Poly/Rayon	14	MIL-C-43992	Cloth, Broadcloth, Poly/Ctn, Durable Press	1
MIL-C-43191	Cloth, Wind Resistant, Sateen, Ctn & Nylon	11	MIL-C-82252	Cloth, Broadcloth, Wool, and Wool-Synthetic (Not Proofed)	1
MIL-C-3924	Cloth, Oxford, Ctn Warp & Nylon Filling, Quarpel Treated	11	MIL-C-43847	Cloth, Oxford, Ctn Warp and Ctn and Nyl Blend Filling	1
MIL-C-10176	Cloth, Gabardine Wool, Poly & Wool	6	MIL-C-44034	Cloth, Twill, Camouflage Pattern, Ctn & Nyl for Dayline Des.	1
MIL-C-43482	Cloth, Poplin, Ctn & Poly (Water Repellent)	5			
MIL-C-29127	Cloth, Twill, Poly/Ctn (Crease Resis. Finish)	5			
MIL-C-43920	Cloth, Interlining, Ctn or Synthetic and Nylon	4			
MIL-C-21881	Cloth, Poplin, Poly and Ctn	4			
LPP-DES18-73	Cloth, Camouflage Pattern, Cotton and Nylon for Dayline Desert Uniform	3			
CCC-C-430	Cloth, Sheetting, Ctn, & Poly and Ctn	3			
MIL-C-43479	Cloth, Broadcloth, Poly & Ctn	3			
MIL-C-44031	Cloth, Camouflage Pattern; Woodland, Ctn & Nylon	3			
MIL-C-43892	Cloth, Twill; Ctn & Nyl	2			
LPP-DES23-73	Cloth, Poplin, Cotton and Nylon for Desert Night Parka	2			
MIL-C-43843	Cloth, Plain Weave, Poly/Ctn, Precured, Durable Press	2			
MIL-C-11065	Cloth, Flannel, Wool & Nyl, 16 oz., Shrink Resistant	2			
MIL-C-29363	Cloth, Poplin: Poly & Ctn (Water Repellent)	2			
MIL-C-43791	Cloth, Twill, Poly/Ctn (Durable Press)	1			
MIL-C-43675	Cloth, Interlining, Ctn Warp and Rayon Filled	1			
MIL-C-83450	Cloth, Satin Weave, Mapped, Aramid Phenolic, Wool/Modacry	1			
MIL-C-82252	Cloth, Broadcloth, Wool, and Wool-Synthetic (Not Proofed)	1			

# NATURAL FIBERS

# NATURAL FIBERS

Spec	Description	# Occurrences	Spec	Description	# Occurrences
CCC-C-419	Cloth, Duck, Ctn, Unbleached, Piled Yarns	18	MIL-C-3760	Cloth, Flannel, Wool & Ctn	2
CCC-C-429	Cloth, Osnaburg, Ctn	15	CCC-C-446	Cloth Muslin, Ctn	2
CCC-C-467	Cloth, Burlap, Jute (Kenaf)	14	MIL-C-10799	Cloth, Coated, Ctn, Vinyl Coated, Fire and Mildew Resistant	2
MIL-C-326	Cloth, Silesia, Ctn, Pkt Lining	14	CCC-C-432	Cloth, Sheetting, Ctn, (Unbleached, Bleached, & Dyed)	2
CCC-C-438	Cloth, Buckram, Ctn	14	CCC-C-428	Cloth, Duck, Ctn; Fire, MWR	1
MIL-C-43627	Cloth, Ctn, Duck, Piled Yarns FMWR, Lightdry Finish	12	MIL-C-41808	Cloth, Duck, Ctn; Fire, Water, Weather & Mildew Resistant	1
MIL-C-297	Cloth, Interlining, Ctn-Warp, & Spun Hair-Wool Filling	7	MIL-C-2184	Cloth, Flannel, Wool, 10-1/2 oz., Shrink Resistant	1
CCC-C-426	Cloth, Drill, Ctn	6	CCC-C-440	Cloth, Cheesecloth, Ctn	1
MIL-C-12095	Cloth, Wind Resistant Sateen, Ctn; Fire Resistant	6	CCC-C-441	Cloth, Corduroy, Ctn	1
MIL-C-342	Cloth, Wind Resistant, Poplin, Ctn	5	MIL-C-29118	Cloth, Twill, Ctn	1
MIL-C-43468	Cloth, Conflg. Ptn; Wind Resis. Poplin, Ctn	4	MIL-C-29137	Cloth, Felt Fabric Composite, Undercollar	1
MIL-C-10859	Cloth, Oxford, Ctn, (Permeable)	4	CCC-C-41	Cloth, Corduroy, Ctn	1
MIL-C-16375	Cloth, Wigan, Ctn	4			
MIL-C-15062	Cloth, Flannel, Wool, Undercollar Cloth	4			
MIL-C-3738	Cloth, Elastic, Wool Resistant	3			
CCC-C-436	Cloth, Ticking Twill, Ctn	3			
MIL-C-484	Cloth, Wind Resistant Oxford, Ctn Quarpel Treated	3			
CCC-C-461	Cloth, Twill, Uniform Ctn	3			
MIL-C-10296	Cloth, Sateen, Ctn	2			
MIL-C-43122	Cloth, Sateen, Ctn, Flame Resistant Treated	2			
MIL-C-16290	Cloth, Melton, Wool (Mothproofed)	2			
MIL-C-483	Cloth, Pile: Alpaca and Wool	2			
MIL-C-18387	Cloth, Twill, Ctn, Fire Retardant Treated	2			

## MAN-MADE FIBERS

## MAN-MADE FIBERS

Spec	Description	# Occurrences	Spec	Description	# Occurrences
MIL-C-508	Cloth, Oxford, Nylon, 3 oz.	15	MIL-C-43473	Cloth, Coated, Nyl, Polyurethane Coated	1
MIL-C-368	Cloth, Satin, Rayon & Cloth, Twill, Rayon	13	MIL-C-83429	Cloth, Plain and Basket Weave, Aromatic Polyamide	1
MIL-C-21852	Cloth, Taffeta, Nyl	8	MIL-C-29147	Cloth, Plain Weave, Poly and Ray, Crease-Resistant Finish	1
MIL-C-7219	Cloth, Duck, Nyl	6	MIL-C-51251	Cloth, Coted; CBR Protective	1
MIL-C-43594	Cloth, Interlining, Poly	6	MIL-C-20696	Cloth, Coated, Nyl, Waterproofed	1
MIL-C-12369	Cloth, Ballistic Nyl	6	MIL-C-7020	Cloth, Parachute, Nyl	1
MIL-C-43128	Cloth, Plain Weave, Poly & Rayon, Crease-Resistant Finish	6	MIL-C-43234	Cloth, Plain Weave, Acrylic	1
MIL-C-19759	Cloth, Coated, Twill, Nyl (Low Count)	5	MIL-C-44043	Cloth, Ballistic, Nyl, Lightweight, Water-Repellent Treated	1
MIL-C-43251	Cloth, Pile, Acrylic Fiber Pile	5	MIL-C-21108	Cloth, Nyl, Raft Bottom	1
MIL-C-43842	Cloth, Oxford, Nyl, Non-melting	5	MIL-C-19002	Cloth, Coated; & Tap, Coated Cloth Chloroprene on Nyl	1
MIL-C-43525	Cloth, Satin, Acetate or Rayon Face & Rayon or Ctn Back	5	MIL-C-43874	Cloth, Plain Weave, Modacrylic, Water-Repellent	1
MIL-C-12189	Cloth, Coated; Butyl Coated, Tox. Agents Protective	4	MIL-C-43734	Cloth, Duck, Nyl, 9-ounce	1
MIL-C-43774	Cloth, Plain or Pajama Check Weave, Nyl Non-melting	3	MIL-C-40039	Cloth, Coated, Nyl, Vinyl Coated	1
MIL-C-81814	Cloth, Twill, Aromatic Polyamide, High Temp. Resistant	3	LPP-DE532-75	Cloth, Ballistic, Aramid, Water-Repellent Thread	1
MIL-C-3395	Cloth, Netting, Nyl	3	MIL-C-19699	Cloth, Coated, Nylon, Tasceta	1
MIL-C-7350	Cloth, Parachute, Nyl	3	MIL-C-23926	Cloth, Coated and Laminated, Polychloroprene on Nylon	1
MIL-C-43906	Cloth, Coated, Nyl, Polyurethane, Double Coated	3	MIL-C-43600	Cloth, Twill Aramid	1
MIL-C-43375	Cloth, Duck, Nyl, 12.5 oz.	3	MIL-C-43637	Cloth, Ripstop Nylon	1
MIL-C-43204	Cloth, Spacer (Olefin)	3	MIL-F-43539	Cloth, Felt, Ballistic, Nylon	1
MIL-C-44050	Cloth, Ballistic, Aramid	2			
MIL-C-87052	Cloth, Twill, Poly, White	2			
MIL-C-41820	Cloth, Gabardine, Poly & Ray	2			

# KNITS

Spec	Description	# Occurrences	Spec	Description	# Occurrences
MIL-C-3735	Cuffs, Knit, Wrist & Ankle, & Cloth, Knitted	13	MIL-W-530	Webbing, Tex, Ctn, Gen Purpose, Nat or in Colors	36
MIL-C-17155	Cloth, Knitted, Nylon, Fleece	8	JJ-W-155	Webbing, Tex, (Ctn, Elastic)	25
MIL-C-43929	Cloth, Knitted, Warf, Linen Look, Poly	3	MIL-W-4088	Webbing, Textile, Woven Nylon	20
MIL-C-43247	Cloth, Knitted, Nyl, Tubular, Stretch Type	3	MIL-W-43638	Webbing, Low Elongation	10
MIL-C-17157	Cloth, Knitted, Ctn (Waffle Type)	2	MIL-W-43668	Webbing, Textile, Bulkied Nylon	9
MIL-C-6590	Cloth, Pile (Synthetic Mouton, Knitted)	2	MIL-W-5664	Webbing, Textile, Elastic, Ctn	8
MIL-C-43358	Cloth, Knitted, Nyl/Triacetate, Tricot, OG-106	2	MIL-W-43685	Webbing, Tape, Tex, Aramid Fiber	6
MIL-C-43824	Cloth, Synthetic Fur, Knitted	2	MIL-W-5665	Webbing, Tex, Ctn Warp	4
MIL-C-81393	Cloth, Knitted, Polyamide, High Temperature Simplex, Jersey	2	MIL-W-17337	Webbing, Tex, Woven, Nyl	4
MIL-C-43858	Cloth, Laminated, Nyl Tricot Knit, Polyurethane Foam Lam.	1	MIL-W-27265	Webbing, Textile, Woven Nylon, Impregnated	1
MIL-C-43983	Cloth, Knitted, Polyester, Rib Knit	1	MIL-W-43688	Webbing, Nylon, Bulkied	1
MIL-C-83398	Cloth, Coated, Stretch, Polychloroprene, Knitted Nyl	1			
MIL-C-40204	Cloth, Knitted, Ctn, Simplex	1			
MIL-C-41831	Cloth, Knitted, Nyl, Raschel	1			
MIL-C-43352	Cloth, Netting, Nyl, Tulle Tricot	1			
LPP-DE512-80	Cloth, Knitted, Aramid, BI-Ply	1			
MIL-C-8061	Cloth, Nylon, Raschel, Knit	1			
MIL-G-3866	Cloth, Cotton, Knitted, Light-Weight	1			

# WEBBING

Spec	Description	# Occurrences
MIL-T-43566	Tape, Ctn, Gen Purpose	51
000-T-86	Tape, Textile, Ctn, Gen Purpose	24
MIL-T-5038	Tape, Textile & Webbing, Textile, Reinforcing, Nylon	14
MIL-T-43709	Tape, Textile, Nyl, Non-Melting	4
MIL-T-5237	Tape, Tex; Webbing, Textile, Rayon	3
MIL-T-2283	Tape, Textile, Nyl, Woven, White or Dyed	1
MIL-T-5661	Tape and Webbing, Cotton, Reinforced	1
MIL-T-8363	Tape and Webbing, Nylon, Woven	1

# TAPE

BATTINGNON-WOVENS

<u>Spec</u>	<u>Description</u>	<u># Occurrences</u>	<u>Spec</u>	<u>Description</u>	<u># Occurrences</u>
MIL-B-41826	Battling, Syn Fibers, Poly (Quilt & Unquilt)	13	MIL-C-41036	Cloth, Interlining, Non-woven	5
MIL-B-81813	Battling, Aramid or Novoloid, Quilted	7	MIL-C-29365	Cloth, Nonwoven; Interlining, Fusible, Nyl & Poly, Polyamid	3
	<u>Twine</u>		MIL-B-87019	Cloth, Non-woven, Disposable, Spun-Bonded Olefin	1
T-I-871	Twine, Cotton, Wrapping	15		<u>THREADS - NATURAL</u>	
T-T-911	Twine, Fibrous Jute	14			
T-T-881	Twine, Ctn Seine	5			
	<u>BRAIDS</u>				
MIL-B-371	Braid, Tex, Tubular	42	V-T-276	Thread, Ctn.	61
MIL-B-593	Braid, Tex, Flat	3	V-T-280	Thread, Ctn-Glmp, Buttonhole	59
MIL-B-1667	Braid, Textile, Cord-Edge	1	V-T-301	Thread, Silk	9
	<u>CORD</u>		V-B-871	Thread, Cotton	1
MIL-C-43303	Cord, Elastic, Ctn	8		<u>THREADS - MAN-MADE</u>	
MIL-C-43256	Cord, Polyester, Solid Braid	7	V-T-285	Thread, Poly	66
T-C-571	Cord, Cotton, Gen and Special Purpose	7	V-T-295	Thread, Nylon	37
MIL-C-5040	Cord, Nylon	4	MIL-T-43636	Thread, Nylon, Non-melting	12
MIL-C-43701	Cord, Elastic, Nylon	3	MIL-T-83193	Thread, Nylon, Spun, Staple, High Temp.	4
MIL-C-43678	Cord, Polyester, Diamond Braid	2	MIL-T-43624	Thread, Poly Spun	5
MIL-C-83242	Cord, Aromatic Polyamide, Non-Melting	2		<u>THREADS - BLENDS</u>	
MIL-C-7515	Cord, Nylon, Adjusting	1	MIL-T-43548	Thread, Poly, Ctn-Wrap	86

Spec	Description	HEADBAND	# Occurrences	Spec	Description	STRAP	# Occurrences
MIL-H-41802	Headband and Neckband, Group Troops, Helmet Liner		2	MIL-S-43355	Strap, Chin, Suspension Assembly		2
MIL-S-3577	Sweatband, Headwear, Leather	SWEATBAND	2	MIL-S-6790	Suspenders, Trousers	SUSPENDERS	2
MIL-S-43993	Sweatband, Headwear, Artificial Leather		1	MIL-T-40625	Tubing, Burlap or Osnaburg	TUBING	11
MIL-L-11075	Loops, Strap Fastener	LOOPS	1	V-L-61	Laces, Nylon	LACES	6
MIL-L-15040	Label, Garment, Moven Rayon	LABEL	1	MIL-C-15065	Coat Fronts	COAT FRONTS	6
MIL-R-30500	Rope, Polyester	ROPE	6	MIL-C-1734	Slip, Tent Line	SLIP	1
MIL-R-1670	Rope, Tent Lay		2	MIL-T-21840	Fastener Tape	FASTENERS	76
T-R-605	Rope, Manila and Sisal		2				
MIL-R-17343	Rope, Polypropylene		1				
MIL-R-24049	Rope, Polypropylene		1				
T-R-616	Rope, Mildew Resistant		1				
MIL-L-1709	Lines, Tent	LINES	3				
MIL-P-15064	Pads, Shoulder and Sleeve Head	PADS	8				

## APPENDIX C

### DLA SUPPLY CENTERS

#### Defense Construction Supply Center

3990d East Broad Street

Columbus, OH 43215

614-236-3541

#### Defense General Supply Center

Bellwood

Petersburg Pike

Richmond, VA 23297

804-275-3617

#### Defense Electronics Supply Center

1507 Wilmington Pike

Dayton, OH 45444

513-296-5231

#### Defense Industrial Supply Center

700 Robbins Avenue

Philadelphia, PA 19111

215-697-2747

#### Defense Fuel Supply Center

Cameron Station, Building 8

5010 Duke Street

Alexandria, VA 22314

#### Defense Personnel Support Center

2800 South 20th Street

Philadelphia, PA 19101

215-952-2321

## APPENDIX D

### GOVERNMENT FURNISHED MATERIAL (GFM) MECHANIZED REQUIREMENTS COMPUTATION PROGRAM

#### Government-Furnished Material

1. Mobilization reserve, if required material is necessary, is needed/required.
2. Required for emergency project orders in Directorate of manufacturing.
3. Required for repair and maintenance of end-items.
4. End-item procurement quantities too small to permit economic purchase of textile material by end-item fabricators, or when quantities are too small to assure purchase of conforming product.
5. To take advantage of marketing conditions.
6. Anticipated shortages of labor.
8. Shortages of raw materials or production facilities.
9. When quantities are such that known substantial savings will result by increased competition and better price because of volume.
10. Specification requirements demand close control of product uniformity (especially subjective characteristics), and timely discovery of material deficiencies is essential for correction to preclude customer complaints.
11. Essential performance characteristics of the material must be assured and controlled prior to cutting and fabrication.
12. Long production lead time is required (normally greater than 4 months).
13. When end-item quantities are such that contractor procurement of the material will cause financial burdens sufficient to discourage or restrict bidding.
14. Cloth is required to be sponged.
15. Procurements are required in order to maintain a production base.

#### Contractor-Furnished Material

1. When material has a commercial equivalent and is readily available.
2. Relatively few quality aspects, where appearance and/or shade are not essential characteristics.
3. Substitutions and options are permitted.
4. When material contains finishes or treatments liable to be affected by storage.
5. When shade of material is liable to be affected by storage.
6. When material contains defects not easily detected when purchased and inspected according to requirements of the material specification (Example: material notoriously shaded within the roll, liable to cause cutting claims).
7. When potential introduction of new item is liable to cause inventory losses due to obsolescence and phase-out.
8. When material production and end-item fabrication is integrated (i.e., knit goods and domestic textiles).
9. Where costs of purchase, storage, and transportation do not result in savings and lead time is less than 4 months.

# APPENDIX E

## UNIFORMS MERCHANDISE LISTING AS OF DECEMBER 1982

<u>AAFES STOCK NUMBER</u>	<u>Description</u>
441 209 010	Army Shirt S/S Poly/wool SH 428
441 209 040	Army Shirt L/S Poly/wool SH 428
442 329 030	Army Overblouse S/S SH 415
442 329 040	Army Overblouse L/S SH 415
440 233 200	Army Dress Jacket Blue SH 450
440 271 200	Army Dress Trousers Lt Blue SH 451 EM/OFF
440 265 050	Army Dress Trousers Dk Blue SH 450 GEN OFF
442 209 210	Army Women's Dress Blue Uniform SH 450
440 201 010	Army Male Uniform Green SH 434 EM
440 201 020	Army Male Uniform Green SH 434 OFF
440 203 070	Army Male Uniform Green SH 434 GEN OFF
442 209 250	Army Women's Uniform Green Classic 3-Pc SH 434
440 261 020	Army Male Trousers Green SH 434 EM
440 261 030	Army Male Trousers Green SH 434 OFF
442 329 010	Army Women's Maternity Tunic Green SH 434
442 309 030	Army Women's Maternity Slack Green SH 434
442 209 010	Army Women's Maternity Skirt Green SH 434
442 209 203	Army Women's Skirt Classic Green SH 434
442 309 030	Army Women's Slack Classic Green SH 434
440 402 050	Air Force Male Uniform Blue SH 1598
440 432 520	Air Force Male Blue Mess Dress Jacket Officers SH 1583
440 432 530	Air Force Male Blue Mess Dress Jacket EM SH 1583
440 461 050	Air Force Male Trousers Blue SH 1598
440 462 460	Air Force Male Blue Mess Dress Trousers SH 1583
441 403 010	Air Force Male Shirt S/S Blue SH 1580
441 403 020	Air Force Male Shirt L/S Blue SH 1580
442 400 010	Air Force Women's Pantsuit Blue SH 1598
442 409 010	Air Force Women's Skirt Maternity Blue SH 1598
442 409 020	Air Force Women's Uniform Blue SH 1598
442 409 040	Air Force Women's Skirt Blue SH 1598 (washable)
442 409 080	Air Force Women's Blue Mess Dress Jacket SH 1583

UNIFORMS MERCHANDISE LISTING  
AS OF DECEMBER 1982  
(Continued)

442 409 100	Air Force Women's Blue Skirt Formal Length Straight
442 409 110	Air Force Women's Blue Skirt Formal Length Flare
442 509 010	Air Force Women's Slace Blue SH 1598
442 509 030	Air Force Women's Slack Maternity Blue SH 1598
442 509 010	Air Force Women's Overblouse S/S Wht w/black tab
442 509 020	Air Force Women's Shirt L/S Blue SH 1580
442 529 030	Air Force Women's Turic Maternity Blue SH 1598
442 529 04C	Air Force Women's Overblouse S/S Blue SH 1580
442 529 050	Air Force Women's Overblouse S/S (Pantsuit) Blue SH 1580
442 529 260	Air Force Women's Shirt Mess Dress White w/blue tab
440 110 010	AR/AF Fatigue Jacket P.P. without tab OG507
440 111 010	AR/AF Fatigue Trouser P.P. OG507
446 391 010	AR Dress Blue EM Conversion Kit (shoulder straps, two buttons, and sleeve braid).
AR-22	AR L/S Maternity Shirt
AF-24	AR S/S Maternity Shirt
AR/AF-2	AF S/S Maternity Shirt

# HEADWEAR MERCHANDISE LISTING

<u>AAFES CODE NUMBER</u>	<u>Description</u>
440 112 010	Cap Fatigue OG 507
440 340 100	AR Cap Garrison 434 OFF
441 340 120	AR Cap Garrison 434 W.O.
441 340 130	AR Cap Garrison 434 EM
441 340 140	AR Cap Garrison 434 GEN
441 342 100	AR Cap Serv Ventld Fld GR
441 342 200	AR Cap Serv Furfelt CO GR
441 342 220	AR Cap Serv Furfelt FLD GR
441 343 342	AR Cap Dress Blue TW EM SH 150
441 343 350	AR Cap Dress Blue Furfelt CO GR
441 343 360	AR Cap Dress Blue Furfelt FD GR
441 349 400	AR Beret, SPEC FORC GRN
441 349 400	AR Beret, Ranger, BLK
441 339 610	AR WM Hat SH 344 GRN CO GR
441 339 620	AR WM Hat SH 344 GRN FLD GR
442 339 630	AR WM Hat SH 450 Blue CO GR
442 339 640	AR WM Hat SH 450 Blue FLD GR
442 339 700	AR WM Beret, BLK
441 541 230	AF Cap Serv SH 1598 AM-CO GR
441 541 240	AF Cap Serv SH 1598 FD GR
441 541 250	AF Cap Serv SH 1598 GEN
441 546 250	AF Cap Mess Dress SH 1583 Blu CO GR
441 546 260	AF Cap Mess Dress SH 1583 Blu FLD GR
441 546 270	AF Cap Mess Dress SH 1583 Blue Gen
441 547 160	AF Cap Flite SH 1598 AMN
441 547 170	AF Cap Flite SH 1598 OFF
441 547 180	AF Cap Flite SH 1598 GEN
441 549 020	AF Beret Scrty Police Blu SH 1561
442 538 010	AF Cap Flite WM SH 1598 AM
442 538 020	AF Cap Flite WM SH 1598 OFF
442 538 030	AF Cap Flite WM SH 1598 GEN
442 530 100	AF WM Serv Cap SH 1598 Blue Plain AM/CO GR
442 530 300	AF WM Serv Cap SH 1598 Blue w/EMB CO GR
442 530 400	AR WM Serv Cap SH 1598 Blue w/EMB FLD GR
441 880 030	Marine Corp Dress Grn OFF CAP DAC/Wool
	New Army Cold Weather Cap

# ACCOUTREMENTS MERCHANDISE LISTING

<u>AAFES CODE NUMBER</u>	<u>Description</u>
441-300010	AR BLK WEB BELT W/BRS BUC/TIP
441-300550	AR BLK WEB BELT W/BLK BUC/TIP
441-309010	AR BLK ELAST BELT W/BRS BUC/TIP
441-309500	AR BLK ELAST BELT W/BLK BUC/TIP
441-500520	AF BLU WEB BELT W/NICK BUC/TIP
441-500010	AF BLU ELAST BELT W/NICK BUC/TIP
441-500020	AF BLU WEB BELT W/BLK BUC/TIP
441-500030	AF BLU ELAST BELT W/BLK BUC/TIP
443-260020	AR BRASS STD BUCKLE
443-260240	AR/AF BLACK STD BUCKLE
443-260210	AR BRASS RECTGR BUCKLE
443-460020	AF NICKLE BUCKLE
443-460670	AR "MIRROR/CHROME" BUCKLE W/TIP
441-590030	AR/AF BLACK CUMMERBUND/TIE SET-ADJ SZ
441-040810	AR BLK NKTIE 4/HAND-D/W
441-042020	AR BLK NKTIE REDI D/W, METAL CLIP
441-041200	AR/AF BOW TIE RAYON SQ CLIP
441-40010	AF NKTIE 4/HAND D/V
441-440120	AF NKTIE 4/HAND D/W
441-441170	AF NKTIE REDI D/W METAL CLIP
441-441190	AF NKTIE REDI D/V METAL CLIP
441-286070	AR/AF WHT GLOVE CTN-SNAP SM, ED, LG
441-120380	AR/AF TRS BLSR OD ELAST TWIST HOOK 1 PR/CD
447-271050	U.S. ARMY WOVEN LABEL-SUBD
449-489080	U.S. AIR FORCE WOVEN LABEL-SUBD
443-063070	AR/AF ID METAL BEAD CHAIN 2/CD
443-063580	A/AF PLASTIC ID TAG COVER 2/CD
443-063590	A/AF ID CHAIN IN PLASTIC W/2 ID COVERS
442-199040	AF WM'S BLUE TAB SH1160
441-590040	AF MALE CUMMERBUND BLUE SH1160
442-199030	AF FEMALE CUMMERBUND BLUE SH1160
441-041210	AF BOW TIE BLUE SH1160

# OUTERWEAR MERCHANDISE LISTING

<u>AAFES STOCK NUMBER</u>	<u>Description</u>
441 219 020	AR Male Blk Pullover Sweater
442 390 020	AR Female Blk Pullover Sweater
441 219 030	AR Male Blk Cardigan Sweater
442 390 030	AR Female Blk Cardigan Sweater
441 408 010	AF Male Pullover Sweater SH 1594 Blue
442 590 010	AF Female Pullover Sweater SH 1594 Blue
441 802 010	Marine Corp Male Pullover Sweater Olive Green
440 230 010	AR Male Jacket w/liner SH 385 Black
442 207 010	AR Female Jacket w/liner SH 385 Black
440 449 010	AF Male Windbreaker Jacket w/liner SH 3356 Blue
440 820 010	Marine Corp Jacket
440 359 040	AR All Weather Coat
440 550 040	AF All Weather Coat SH 3356 Blue

# APPENDIX F SPECIFICATION REQUIRED TEXTILE PROPERTIES

## NATURAL FABRICS

FABRIC	Generic Name Weave	NIL-C-43627	NIL-C-43468 Type I	NIL-C-43468 Type II	NIL-C-342 Class A	NIL-C-342 Class B
		Duck Plain	Poplin	Poplin Plain-weave w/rib repeat- weave & filling	Poplin	Poplin
	Warp Ends/inch		136	106	106	106
	Filling Ends/inch		52	52	52	52
	Weight-Min. Oz./Sq. Yd.		5.7	5.7	5.7	5.7
	Max. Oz./Sq. Yd.	16.0	6.7	6.7	6.7	6.7
	Width	36"-46"-59"				
	Minimum Roll Length	40 yards	40 yards	40 yards	40 yards	40 yards
	Minimum Break	185	120	100	125	110
	Minimum Tear	6	72	60	82	70
	Maximum Shrinkage	2.0	2.0	2.0	2.0	2.0
	Maximum Elongation	2.0	2.0	2.0	2.0	2.0
	Maximum Non-Fibrous Mat.	5.0	15.0	15.0	15.0	15.0
Processes:	Maximum Air Permeability	4.0	1	1	4	1
	Singeing ?					
	Bleaching ?		X	X	X	X
	Mercerizing ?		X	X	X	X
	Dyeing ?		X	X		
	Printing ?		X	X		
	Coating ?					
	Fusing?					
	Dyes Used ?	Yes	Yes + Sulphur Black		Yes	Yes
	Coating Used ?					
	Infrared Reflect ?		X	X		
	Odor Test ?			X		X
	Water Repellent ?	X		X		
	Hydrostatic Resist ?					
	Stiffness ?	X				
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X	X	X	X	X
	Labile Sulphur?		X	X		
	Resistant to Insect					
	Roam ?					
	Leakage ?		X	X		X
	Spray Rating ?		X	X	X	X
	Colorfastness ?		X	X	X	X
	pH Test ?	X				
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?	X				
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Salt Release Treatment					
	Antistatic Finish					
	Napped					
FIBERS	Types of Fibers	Cotton	Cotton	Cotton	Cotton	Cotton
	% in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
YARNS	Cotton Count	M				
	Ply	F	2-Ply	2-Ply	2-Ply	2-Ply
	Type Yarn	F	2-Ply or Singles	2-Ply	2-Ply or Singles	2-Ply
	Carded or Combed	M	Spun	Spun	Spun	Spun
		F	Spun	Spun	Spun	Spun
		F	Combed	Combed	Combed	Combed
		F	Carded	Carded	Carded	Carded
INTENDED USE						
		Tents	Camouflage Clothing	Camouflage Clothing	Clothing and Equipment	Clothing Equipment

		CCC-C-436 Type I/Class 1	CCC-C-436 Type II/Class 1	CCC-C-436 Type II/Class 2	MIL-C-484 Type I	MIL-C-484 Type IV
<b>FABRIC</b>	Generic Name	Twill	Twill	Twill	Oxford	Oxford
	Woven	3/1	2/1	2/1		
	Warp Ends/Inch	70	70	70	130	196
	Filling Ends/Inch	62	44	44	54	86
	Weight-Min. Oz./Sq. Yd.	8.5	6.5	6.5	6.5	5.5
	Weight-Max. Oz./Sq. Yd.	9	7	7	7.2	6.2
	Width					
	Minimum Roll Length				40 Yards	40 Yards
	Minimum Break	135	110	110	135	170
	Minimum Tear	90	60	60	90	90
	Maximum Shrinkage	2.0	2.0	2.0	2.0	2.0
	Maximum Elongation	2.0	2.0	2.0	2.0	2.0
	Maximum Non-Fibrous Mat.	2.0	2.0	2.0	2.0	2.0
	Maximum Air Permeability				4	4
	Singeing ?				X	X
	Bleaching ?					
	Mercerizing ?				X	X
	Dyeing ?	Yarn Dyed	Yarn Dyed	Yarn Dyed	X	X
	Printing ?					
	Coating ?					
	Fusing ?					
<b>Processes:</b>	Dyes Used ?	Yes	Yes	Yes	Yes	Yes
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?				X	X
	Hydrostatic Resist ?					
	Stiffness ?				X	X
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X	X	X	X	X
	Labile Sulphur ?				X	X
	Resistant to Insect					
	Repeel ?					
	Leakage ?					
	Spray Rating ?				X	X
	Colorfastness ?	X	X	X	X	X
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?			X		
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Napped					
<b>FIBERS</b>	Types of Fibers	Cotton	Cotton	Cotton	Cotton	Cotton
	Shrink Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<b>YARNS</b>	Cotton Count	M				
		F				
	Ply	M	Singles	Singles	Singles	Singles
		F	Singles	Singles	Singles	2-Ply
	Type Yarn	M	Spun	Spun	Spun	Spun
		F	Spun	Spun	Spun	Spun
<b>Carded or Combed</b>		M	Carded	Carded	Carded	Carded
		F	Carded	Carded	Carded	Carded
<b>INTENDED USE</b>		Mattress and Pillow Covers	Mattress and Pillow Covers	Mattress and Pillow Covers	Wind Resistant Clothing	Wind Resistant Clothing

		CCC-C-467 Class 1	CCC-C-467 Class 2	CCC-C-467 Class 3	CCC-C-467 Class 4	CCC-C-419
<u>FABRIC</u>	Generic Name	Burlap	Burlap	Burlap	Burlap	Duck
	Weave	Plain	Plain	Plain	Plain	Plain
	Warp Ends/Inch	9	10	12	12	
	Filling Ends/Inch	9	9	11	12	
	Weight-Min. Oz./Sq. Yd.	7.2	7.6	9.5	11.4	28.7
	Max. Oz./Sq. Yd.	7.8	8.4	10.5	12.6	
	Width	40"	40"	40"	40"	40 yards
	Minimum Roll Length	25 yards	25 yards	25 yards	25 yards	425
	Minimum Break					345
						4
	Minimum Tear					3
	Maximum Shrinkage					
	Maximum Elongation					
	Maximum Non-Fibrous Mat.					2.5
	Maximum Air Permeability					4.0
	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?					
	Printing ?					
<u>Processes:</u>	Coating ?					
	Fusing?					
	Dyes Used ?					
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?					
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?					
	Labile Sulphur?					
	Resistant to Insect					
	Repel ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?					
<u>FIBERS</u>	pH Test ?					
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Neppud					
	Types of Fibers	Jute	Jute	Jute	Jute	Cotton
	% in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<u>YARNS</u>	Cotton Count					
						2-ply
	Ply					2-ply
						Spun
	Type Yarn					Spun
<u>INTENDED USE</u>						Carded
	Carded or Combed					Carded
		Burlap	Burlap	Burlap	Burlap	Texting
		Bagging	Bagging	Bagging	Bagging	

FABRIC		MIL-C-10889 Type I	MIL-C-10889 Type II	MIL-C-12099	CCC-C-488
		Before	Before	Section 5-inches w/2 Center	Such
	Warp Ends/Inch	124	115	104	Various
	Filling Ends/Inch	42	44	58	Various
	Weight - Min. Oz./Sq. Yd.	5.2	4.0	8.5	Various
	Max. Oz./Sq. Yd.	6.8		9.5	Various
	Width			25"	
	Minimum Roll Length	50 Yards	50 Yards	40 Yards	
	Minimum Break	75	100	170	
	Minimum Tear	50	65	150	
	Minimum Shrinkage	1.0	1.0	3.8	
	Maximum Elongation	1.0	1.0		
	Maximum Non-Fluores. Ret.			2.0	5.0
Processes:	Maximum Air Permeability	20	20	2.0	
	Shrinkage ?	X	X	X	
	Bleaching ?	X	X	X	
	Mercurizing ?	X	X	X	
	Dyeing ?	X	X	X	
	Printing ?				
	Coating ?				
	Finishing ?				
	Dyes Used ?			Yes	
	Coatings Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?		X	X	X
	Hydrostatic Resist ?			X	X
	Stiffness ?	X			X
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur ?			X	
	Resistant to Insect				
	Repeel ?				
	Leakage ?				
	Spray Resist ?				
	Colorfastness ?	X	X	X	X
	Oil Test ?	X		X	X
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Acoustic ?				
	Heat Resistance ?				
	Flame Resistance ?	X		X	X
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Acoustic Finish				
	Repeel				
FIBERS	Type of Fibers	Cotton	Cotton	Cotton	Cotton
	% in Yarn	100.0	100.0	100.0	100.0
	% Tolerance				
	Staple Length				
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
YARN	Cotton Count			40/2	
	Ply			40/2	
	Type Yarn	Singles	Singles	2 or 3-Ply	
	Carved or Combed	Singles	Singles	2 or 3-Ply	
		Sewn	Sewn	Sewn	
		Carved	Carved	Carved	
		Carved	Carved	Carved	
INTENDED USE		Clothing and victims	Clothing and victims	Tentage	Various Purposes

		CCC-C-429 Type 1/Class 2	CCC-C-429 Type 1/Class 2	CCC-C-429 Type 1/Class 3	CCC-C-429 Type 1/Class 5	CCC-C-429 Type 1/Class 2
<u>FABRIC</u>	Generic Name	Osnaburg	Osnaburg	Osnaburg	Osnaburg	Osnaburg
	Weave	Plain	Plain	Plain	Plain	Plain
	Appr Ends/Inch	38	38	32	28	38
	Filling Ends/Inch	24	24	26	24	22
	Weight-Min. Oz./Sq. Yd.	6.8	6.1	4.9	3.5	6.1
	Max. Oz./Sq. Yd.					
	Width					
	Minimum Roll Length	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Break	60	60	50	40	60
	Minimum Tear	60	60	50	40	60
	Maximum Shrinkage					
	Maximum Elongation					
	Maximum Non-Fibrous Mat.	12.0	4.0	4.0	4.0	4.0
<u>Processes:</u>	Maximum Air Permeability					
	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?					
	Printing ?					
	Coating ?					
	Fusing?					
	Dyes Used ?					
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Mold Resistant ?					
	Hydrostatic Resist ?					
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?					
	Labile Sulphur?					
	Resistant to Insect					
	Repeel ?					
	Leakage ?					
	Spray Racking ?					
	Colorfastness ?					
	pH Test ?					
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	English Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Needed					
<u>FIBERS</u>	Types of Fibers	Cotton	Cotton	Cotton	Cotton	Cotton
	% in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Spinner					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<u>YARNS</u>	Cotton Count					
	Ply					
	Type Yarn					
	Carded or Combed					
<u>INTENDED USE</u>						

		CCC-C-461 Type I	CCC-C-461 Type II	CCC-C-461 Type III	CCC-C-461 Type IV	CCC-C-461 Type V	CCC-C-461 Type VI
FABRIC	Generic Name	Twill	Twill	Twill	Twill	Twill	Twill
	Warp	3/1 Right	3/1 Right	3/1 Left	3/1 Left	3/1 Left	3/1 Left
	Warp Ends/Inch	116	116	112	100	100	112
	Filling Ends/Inch	56	56	54	54	54	56
	Weight-Min. Oz./Sq. Yd.	8.2	8.2	8.0	7.5	7.5	8.4
	Max. Oz./Sq. Yd.						
	Width						
	Minimum Roll Length	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Break	180	180	160	160	150	170
	Minimum Tear	120	110	110	110	100	90
	Maximum Shrinkage	1.0	1.0	1.0	1.0	1.0	1.0
	Maximum Elongation	1.0	1.0	1.0	1.0	1.0	1.0
	Maximum Non-Fibrous Mat.	2.0	2.0	2.0	2.0	2.0	2.0
	Maximum Air Permeability						
Processes:	Singeing ?	X	X	X	X	X	X
	Bleaching ?	X	X	X	X	X	X
	Mercerizing ?	X	X	X	X	X	X
	Dyeing ?	X	X	X	X	X	X
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?	Yes	Yes	Yes	Yes	Yes	Yes
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	X	X	X	X	X	X
	Labile Sulphur ?						
	Resistant to Insect						
	Resist ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?	X	X	X	X	X	X
	pH Test ?						
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Napped						
FIBERS	Types of Fibers	Cotton	Cotton	Cotton	Cotton	Cotton	Cotton
	5 in Yarn	100.0	100.0	100.0	100.0	100.0	100.0
	6 Tolerance						
	Staple Length						
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool						
	Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
YARNS	Cotton Count	M	M	M	M	M	M
	Ply	F	F	F	F	F	F
	Type Yarn	M	M	M	M	M	M
	Carded or Combed	F	F	F	F	F	F
INTENDED USE		Uniform	Uniform	Uniform	Uniform	Uniform	Uniform
		Fabric	Fabric	Fabric	Fabric	Fabric	Fabric

FABRIC	Generic Name Moire	MIL-C-10296	MIL-C-43122 Class 1, 3	MIL-C-43122 Class 2, 4	MIL-C-16298 Type I	MIL-C-16298 Type II
		Sateen 5-Harness	Sateen 5-Harness	Sateen 5-Harness	Malton 2 up, 1 down right twill	Malton 1 up, 1 down cross foot
	Warp Ends/Inch	85	80	80	60	55
	Filling Ends/Inch	48	40	40	55	45
	Weight-Min. Oz./Sq. Yd.				16	22
	-Max. Oz./Sq. Yd.	9.0	10.5	10.5	17	24
	Width				56"	56"
	Minimum Roll Length	40 yards	40 yards	40 yards	40 yards	40 yards
	Minimum Break	140	110	110	58	80
	Minimum Tear	118	100	100	46	60
	Maximum Shrinkage	1.0			4.0	4.5
	Maximum Elongation	1.0			3.0	2.0
	Maximum Non-Fibrous Mat.	3.0	3.0	3.0		
	Maximum Air Permeability		10.0	10.0		
Processes:	Singeing ?	X	X	X		
	Bleaching ?	X				
	Mercerizing ?	X	X	X	Stock	Stock
	Dyeing ?	X	X	X		
	Printing ?		X	X		
	Coating ?					
	Dyes Used ?	Yes	Yes	Yes	Hardant	Hardant
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?		X	X	X	
	Hydrostatic Resist ?					
	Stiffness ?		X	X	X	
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X	X	X	X	X
	Labile Sulphur ?	X	X	X		
	Resistant to Insect Repel ?					
	Leakage ?					
	Spray Rating ?				X	X
	Colorfastness ?	X	X	X	X	X
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?		X	X		
	Dursole Press					
	Shrink Resistant					
	Crease Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Repeal					
FIBERS	Types of Fibers	Cotton	Cotton	Cotton	Wool	Wool
	S in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance				5.0	5.0
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
YARNS	Cotton Count	M				
		F	9.5/1			
	Ply (Pile)	M	Singles	Singles	Singles	Singles
		F	Singles	Singles	Singles	Singles
	Type Yarn	M	Spun	Spun	Spun	Spun
		F	Spun	Spun	Spun	Spun
	Carded or Combed	M	Carded	Carded	Carded	Carded
		F	Carded	Carded	Carded	Carded
INTENDED USE		Clothing	Tent	Fireman's	Naval	Naval
		Fabric	Linens	pants	Clothing	Clothing

		NIL-C-297F Type I Class 1	NIL-C-297F Type I Class 2	NIL-C-297F Type II Class 1	NIL-C-297F Type II Class 2	NIL-C-297F Type III Class 1	NIL-C-297F Type III Class 2	
FABRIC	Generic Name	Natural	Dyed	Natural	Dyed	Natural	Dyed	
	Weave	Plain	Plain	Plain	Plain	Plain	Plain	
	Warp Ends/Inch	42	42	42	42	42	42	
	Filling Ends/Inch	36	36	36	36	36	36	
	Weight-Min. Oz./Sq. Yd.	7.0	7.0	7.5	7.5	5.0	5.0	
	Max. Oz./Sq. Yd.	8.0	8.0	9.0	9.0	6.5	6.5	
	Width							
	Minimum Roll Length	40 Yds	40 Yds	40 Yds	40 Yds	40 Yds	40 Yds	
	Minimum Break	M	50	50	50	50	50	
		F	45	45	45	45	45	
	Minimum Tear	M						
		F						
	Maximum Shrinkage	M						
		F						
	Maximum Elongation	M						
		F						
	Maximum Non-Fibrous Mat.	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	
	Maximum Air Permeability							
	Processes:	Singeing ?						
		Bleaching ?						
Mercerizing ?								
Dyeing?			X		X		X	
Printing ?								
Coating ?								
Fusing?								
Dyes Used ?								
Coating Used ?								
Infrared Reflect?								
Odor Test?								
Water Repellent								
Hydrostatic Resist ?								
Stiffness ?		X	X	X	X	X	X	
Coating Adhesion ?								
Coating Distribution ?								
Blocking ?								
Color Matching ?			X		X		X	
Labile Sulphur?			X		X		X	
Resistant to Insect								
Repel ?								
Leakage ?								
Spray Rating ?								
Colorfastness ?			X		X		X	
pH Test ?			5.0-8.0		5.0-8.5		5.0-8.5	
Mildew Resistance ?								
Resin Finish ?								
Ballistic Resistance ?								
Antistatic ?								
Heat Resistance ?								
Flame Resistance ?								
Durable Press								
Shrink Resistant								
Crease Resistant								
Soil Release Treatment								
Antistatic Finish								
Rapped								
Thickness (Max)								
(Min)								
FIBERS		Types of Fibers						
	% in Yarn		Min. 25% Animal Fiber		Min. 25% Animal Fiber		Min. 25% Animal Fiber	
	% Tolerance							
	Staple Length							
	Denier							
	Tenacity							
	Cross-Section							
	Luster							
	Type Wool							
	Grade Wool							
	Treatments							
	Type Aramid							
	Carbonization Temp.							
	Treatments							
	YACNS	Cotton Count	d					
			F					
Ply		M	--	--	--	--	--	
		F	1	1	1	1	1	
Type Yarn		M	--					
		F	Spun	Spun	Spun	Spun	Spun	
Carded or Combed	M							
	F	--						
INTENDED USE		Interlining.	Interlining	Interlining	Interlining	Interlining	Interlining	

\* Warp: Any combination of cotton and polyester or 45% to 100% poly and rest rayon.  
 Filling: Goats hair and wool or goats hair and rayon.

FABRIC	Generic Name	CCC-C-446E	CCC-C-446E	CCC-C-446E	CCC-C-446E	CCC-C-446E	CCC-C-446E	CCC-C-446E
		Type III Class 1	Type III Class 2	Type III Class 3	Type IV Class 1	Type V Class 1	Type VI Class 2	Type VII Class 2
	Weave	Muslin	Muslin	Muslin	Muslin	Muslin	Muslin	Muslin
	Warp Ends/Inch	78	90	83	38	56	64	85
	Filling Ends/Inch	76	70	74	36	60	56	72
	Weight-Min. Oz./Sq. Yd.	3.4	2.9	3.0	2.4	3.9	2.4	3.1
	Max. Oz./Sq. Yd.							
	Width	--	--	--	--	--	--	--
	Minimum Roll Length	40 Yds	40 Yds	40 Yds	40 Yds	40 Yds	40 Yds	40 Yds
	Minimum Break	W 46	W 45	W 44	W 37	W 44	W 35	W 45
	Minimum Tear	F 39	F 32	F 34	F 20	F 50	F 25	F 30
	Maximum Shrinkage	W 9.0	W 6.0	W 2.0	W 9.0	W 9.0	W 6.0	W 6.0
	Maximum Elongation	F 9.0	F 6.0	F 2.0	F 9.0	F 9.0	F 6.0	F 6.0
	Maximum Non-Fibrous Mat.	12.0%	2.0%	2.0%	12.0%	12.0%	2.0%	2.0%
Processes:	Maximum Air Permeability							
	Singeing ?		X	X		X	X	X
	Bleaching ?		Or Dye	Or Dye		Or Dye	Or Dye	Or Dye
	Mercerizing ?							
	Dyeing ?		Or Bleach	Or Bleach		Or Bleach	Or Bleach	Or Bleach
	Printing ?							
	Coating ?							
	Fusing ?							
	Dyes Used ?							
	Coating Used ?							
	Infrared Reflect?							
	Odor Test?							
	Water Repellent							
	Hydrostatic Resist ?							
	Stiffness ?							
	Coating Adhesion ?							
	Coating Distribution ?							
	Blocking ?							
	Color Matching ?	X	X	X	X	X	X	X
	Labile Sulphur?		X	X		X	X	X
	Resistant to Insect							
	Reel ?							
	Leakage ?							
	Spray Rating ?							
	Colorfastness ?	X	X	X	X	X	X	X
	pH Test ?		9.0-8.5	9.0-8.5			9.0-8.5	9.0-8.5
	Mildew Resistance ?							
	Resin Finish ?							
	Ballistic Resistance ?							
	Antistatic ?							
	Heat Resistance							
	Flame Resistance ?							
	Durable Press							
	Shrink Resistant							
	Crease Resistant							
	Full Release Treatment							
	Antistatic Finish							
	Hopped							
	Thickness (Max)							
	(Min)							
FIBERS	Types of Fibers	Cotton	Cotton	Cotton	Cotton	Cotton	Cotton	Cotton
	5 in Yarn	100	100	100	100	100	100	100
	2 Tolerance	100	100	100	100	100	100	100
	3 Mile Length							
	Denier							
	Tenacity							
	Cross-Section							
	Luster							
	Type Wool							
	Grade Wool							
	Treatments							
	Type Aramid							
	Carbonization Temp.							
	Treatments							
FIBERS	Cotton Count	W --	W --	W --	W --	W --	W --	W --
	Ply	W 1	W 1	W 1	W 1	W 1	W 1	W 1
	Type Yarn	W 1	W 1	W 1	W 1	W 1	W 1	W 1
	Carded or Combed	F Sewn	F Sewn	F Sewn	F Sewn	F Sewn	F Sewn	F Sewn
		F Either	F Either	F Either	F Either	F Either	F Either	F Either

FINISHED

		CCC-C-438		CCC-C-438		CCC-C-438		CCC-C-438		CCC-C-438	
		Type I/Class 1		Type I/Class 2		Type II/Class 1		Type III/Class 1		Type III/Class 2	
<u>FABRIC</u>	Generic Name	Buckram		Buckram		Buckram		Buckram		Buckram	
	Weave	Plain		Plain		Plain		Plain		Herringbone Twill	
	Warp Ends/Inch	52		43		50		46		48	
	Filling Ends/Inch	44		22		42		42		20	
	Weight-Min. Oz./Sq. Yd.	5.7		5.7		4.5		3.8		12.0	
	Max. Oz./Sq. Yd.	6.8		7.4							
	Width										
	Minimum Full Length	40 yards		40 yards		40 yards		40 yards		40 yards	
	Minimum Break	W 63		W 80		W 60		W 50		W 140	
		F 54		F 54		F 50		F 40		F 125	
	Minimum Tear	W		W		W		W		W	
		F		F		F		F		F	
	Maximum Shrinkage	W 3.0		W 3.0		W 1.0					
		F 2.0		F 3.0		F 1.0					
	Maximum Elongation	W		W		W		W		W	
		F		F		F		F		F	
	Maximum Non-Fibrous Mat.					6.0		3.5		5.0	
	Maximum Air Permeability										
<u>Processes:</u>	Singeing ?										
	Bleaching ?										
	Mercerizing ?										
	Ureing ?										
	Printing ?										
	Coating ?										
	Fusing ?										
	Dyes Used ?										
	Coating Used ?										
	Infrared Reflect ?										
	Odor Test ?										
	Water Repellent ?										
	Hydrostatic Resist ?										
	Stiffness ?	X		X		X		X		X	
	Coating Adhesion ?										
	Coating Distribution ?										
	Blocking										
	Color Matching ?	X		X		X		X		X	
	Leakage ?	X		X		X		X		X	
	Resistance to Insect										
	Repel										
	Leakage										
	Curry ?										
	Colorfastness ?	X		X		X		X		X	
	pH Test ?	X		X		X		X		X	
	Mildew Resistance ?										
	Resin Finish ?	X		X		X					
	Saltstic Resistance ?										
	Antistatic ?										
	Heat Resistance ?										
	Flame Resistance ?										
	Durable Press										
	Shrink Resistant										
	Crease Resistant										
	Soil Release Treatment										
	Antistatic Finish										
	Knapped										
<u>FIBERS</u>	Types of Fibers	Cotton		Cotton		Cotton		Cotton		Cotton	
	Sp in Yarn	100.0		100.0		100.0		100.0		100.0	
	Staple Length										
	Denier										
	Tenacity										
	Cross-Section										
	Luster										
	Type Wool										
	Grade Wool										
	Treatments										
	Type Aramid										
	Carbonization Temp.										
	Treatments										
<u>YARNS</u>	Cotton Count	W		W		W		W		W	
		F		F		F		F		F	
	Ply	Singles		Singles		Singles		Singles		Singles	
		Singles		Singles		Singles		Singles		Singles	
	Type Yarn	Sown		Sown		Sown		Sown		Sown	
		Sown		Sown		Sown		Sown		Sown	
	Carded or Combed	W		W		W		W		W	
		Carded		Carded		Carded		Carded		Carded	
		Carded		Carded		Carded		Carded		Carded	
<u>INTENDED USE</u>		Interlining		Interlining		Interlining		Interlining		Interlining	

FABRIC	Generic Name Weave	MIL-C-483 Type 1	MIL-C-483 Type 2	MIL-C-483 Type 7	MIL-C-483 Type 9	CCC-C-426
		Pile 5/16"	Pile 1/2"	Pile 1/2"	Pile 1/4"	Drill 2/1 Left Twill
	Warp Ends/Inch					
	Filling Ends/Inch					
	Weight-Min. Oz./Sq. Yd.	15	20.5	19	14	
	Max. Oz./Sq. Yd.					
	Width					
	Minimum Roll Length	30 Yards	30 Yards	30 Yards	30 Yards	40 Yards
	Minimum Break	d				
		F				
	Minimum Tear	d				
		F				
	Maximum Shrinkage	d				2.0
		F				2.0
	Maximum Elongation	d				
		F				
	Maximum Non-Fibrous Mat.					10.0
	Maximum Air Permeability					
Processes:	Singeing ?					X
	Bleaching ?					X
	Mercerizing ?					X
	Dyeing ?	X	X		X	X
	Printing ?					
	Coating ?					
	Fusing ?					
	Dyes Used ?					Vets
	Coatings Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?					
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X	X		X	X
	Labile Sulphur ?					X
	Resistant to Insect					
	Repel ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?	X	X		X	X
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Nepped					
FIBERS	Types of Fibers	Wool	Wool	Alpaca	Wool	Cotton
	S in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance	5.0	5.0	5.0	5.0	
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool	Fleece or pulled	Fleece or pulled	Alpaca Fleece or pulled		
	Grade Wool	>50's, <56's	>50's, <56's	>56's	>50's, <56's	
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
YARNS	Cotton Count	M				
		F				
	Ply	M	2-Ply	2-Ply	2-Ply	Singles
		F				Singles
	Type Yarn	M	Spun	Spun	Spun	Spun
		F				Spun
	Carded or Combed	M	Combed	Combed	Combed	Carded
		F				Carded
	Cotton Count of					
	Pile Backing	M	20/2	20/2	20/2	
	(Cotton)	F	16/2	16/2	18/2	
INTENDED USE		Cold	Cold	Cold	Cold	Clothing
		Climate	Climate	Climate	Climate	
		Lining,	Lining,	Lining,	Lining,	
		Flying	Flying	Flying	Flying	
		Clothes	Clothes	Clothes	Clothes	

		NIL-C-16387	NIL-C-1760	NIL-C-1760	NIL-C-16375 Type 1	NIL-C-16375 Type 2
<u>FABRIC</u>	Generic Name	Twill		Flannel	Wigan	Wigan
	Weave	3/3 Right		Plain	Plain	Plain
	Warp Ends/Inch	105		38	40	48
	Filling Ends/Inch	100		32	34	40
	Weight-Min. Oz./Sq. Yd.	4.2		9.0	2.5	3.5
	Weight-Max. Oz./Sq. Yd.	4.6				
	Width			60"		
	Minimum Roll Length	40 Yards		40 Yards	40 Yards	40 Yards
	Minimum Break	W 95		42	35	52
		F 60		32	25	28
	Minimum Tear	W 6				
		F 6				
	Maximum Shrinkage	W 2.0		6.0		
		F 2.0		4.0		
	Maximum Elongation	W				
		F				
	Maximum Non-Fibrous Mat.					
	Maximum Air Permeability	18-60				
<u>Processes:</u>	Singeing ?	X				
	Bleaching ?					
	Mercerizing ?	X				
	Dyeing ?	X		Stock		
	Printing ?					
	Coating ?					
	Fusing?					
	Dyes Used ?	Yes				
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?					
	Stiffness ?	X				
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X		X	X	X
	Labile Sulphur?	X			X	X
	Resistant to Insect Repel ?					
<u>FIBERS</u>	Leakage ?					
	Spray Rating ?					
	Colorfastness ?	X			X	X
	pH Test ?			X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?	X				
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Napped					
	Types of Fibers	Cotton	Wool	Cotton	Cotton	Cotton
	% in Yarn	100.0	80.0	20.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments			Watherproof		
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<u>YARNS</u>	Cotton Count	W				
		F				
	Ply	W 2-Ply		Singles	Singles	Singles
		F 2-Ply		Singles	Singles	Singles
	Type Yarn	W Spun		Spun	Spun	Spun
		F Spun		Spun	Spun	Spun
	Carded or Combed	W Carded		Carded	Carded	Carded
		F Carded		Carded	Carded	Carded
<u>INTENDED USE</u>		Flight Clothing		Lining Fabric For Fireman's Pants	Clothing Interlining	Clothing Interlining

		CCC-C-446E Type I Class 1	CCC-C-446E Type I Class 2	CCC-C-446E Type I Class 3	CCC-C-446E Type II Class 1	CCC-C-446E Type II Class 2	CCC-C-446E Type II Class 3
FABRIC	Generic Name	Muslin	Muslin	Muslin	Muslin	Muslin	Muslin
	Weave	Plain	Plain	Plain	Plain	Plain	Plain
	Warp Ends/Inch	64	66	68	68	70	72
	Filling Ends/Inch	58	52	56	70	64	68
	Weight-Min. Oz./Sq. Yd.	2.7	2.4	2.5	3.1	2.7	2.8
	Max. Oz./Sq. Yd.						
	Width	--	--	--	--	--	--
	Minimum Roll Length	40 Yds	40 Yds	40 Yds	40 Yds	40 Yds	40 Yds
	Minimum Break	37	34	36	42	38	40
	Minimum Tear	26	20	22	34	28	30
	Maximum Shrinkage	9.0	6.0	2.0	9.0	6.0	2.0
	Maximum Elongation	9.0	6.0	2.0	9.0	6.0	2.0
	Maximum Non-Fibrous Mat.	12.0%	2.0%	2.0%	12.0%	2.0%	2.0%
Processes:	Maximum Air Permeability						
	Singeing?		X	X		X	X
	Bleaching?		Or Dye	Or Dye		Or Dye	Or Dye
	Mercerizing?						
	Dyeing?		Or Bleach	Or Bleach		Or Bleach	Or Bleach
	Printing?						
	Coating?						
	Fusing?						
	Dyes Used?						
	Coating Used?						
	Infrared Reflect?						
	Odor Test?						
	Water Repellent						
	Hydrostatic Resist?						
	Stiffness?						
	Coating Adhesion?						
	Coating Distribution?						
	Blocking?						
	Color Matching?	X	X	X	X	X	X
	Labile Sulphur?		X	X		X	X
	Resistant to Insect						
	Repel?						
	Leakage?						
	Spray Rating?						
	Colorfastness?	X	X	X	X	X	X
	pH Test?		5.0-8.5	5.0-8.5		5.0-8.5	5.0-8.5
	Mildew Resistance?						
	Resin Finish?						
	Ballistic Resistance?						
	Antistatic?						
	Heat Resistance?						
	Flame Resistance?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Mapped						
	Thickness (Max)						
	(Min)						
FIBERS	Types of Fibers	Cotton	Cotton	Cotton	Cotton	Cotton	Cotton
	% in Yarn	100	100	100	100	100	100
	% Tolerance	100	100	100	100	100	100
	Staple Length						
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool						
	Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
YARNS	Cotton Count	--	--	--	--	--	--
		--	--	--	--	--	--
	Ply	1	1	1	1	1	1
		1	1	1	1	1	1
	Type Yarn	Spun	Spun	Spun	Spun	Spun	Spun
		Spun	Spun	Spun	Spun	Spun	Spun
	Carded or Combed	Either	Either	Either	Either	Either	Either
		Either	Either	Either	Either	Either	Either
INTENDED USE		Clothing,	Clothing,	Clothing,	Clothing,	Clothing,	Clothing,
		Flags,	Flags,	Flags,	Flags,	Flags,	Flags,
		Equipment Items	Equipment Items	Equipment Items	Equipment Items	Equipment Items	Equipment Items

		MIL-C-1738 Type I	MIL-C-1738 Type II	MIL-C-1738 Type III	CCC-C-432 Class I	CCC-C-432 Class 2, 3
<u>FABRIC</u>	Generic Name	Elastique	Elastique	Elastique	Shooting	Shooting
	Weave				Plain	Plain
	Warp Ends/Inch	128	124	138	48	58
	Filling Ends/Inch	96	80	96	48	48
	Weight-Min. Oz./Sq. Yd.	14	13	12		
	Weight-Max. Oz./Sq. Yd.				1.3	1.5
	Width	>60"	>60"	>60"		
	Minimum Roll Length	50 Yards	50 Yards	50 Yards	40 Yards	40 Yards
	Minimum Break	M 180	M 140	M 130		
	Minimum Tear	F 90	F 80	F 70		
	Maximum Shrinkage	M 5.5	M 6.0	M 5.5	2.0	2.0
	Maximum Elongation	F 3.0	F 4.0	F 3.0	2.0	2.0
	Maximum Non-Fibrous Mat.					
	Maximum Air Permeability					
	Singeing ?					
	Bleaching ?					X
	Mercerizing ?					
	Dyeing ?	Stock	Stock	Stock		X
	Printing ?					
	Coating ?					
	Fusing ?					
<u>Processes:</u>	Dyes Used ?	Acid, Mordant	Acid, Mordant	Acid, Mordant		
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?				X	X
	Hydrostatic Resist ?					
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X	X	X	X	X
	Lauing Sulphur ?					X
	Resistant to Insect					
	Repeal ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?	X	X	X	X	X
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?				X	X
	Resin Finish ?					
<u>FIBERS</u>	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?				X	X
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Yarned					
	Types of Fibers	Wool	Wool	Wool	Cotton	Cotton
	S in Yarn	100.0	100.0	100.0	100.0	100.0
	S Tolerance	5.0	5.0	5.0		
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled		
	Grade Wool	>70's	>64's	>70's		
	Treatments	Wethersproofing	Wethersproofing	Wethersproofing		
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<u>YARNS</u>	Cotton Count	M				
		F				
	Ply	M	2-Ply	2-Ply	2-Ply	Singles
		F	2-Ply	2-Ply	2-Ply	Singles
	Type Yarn	M	Spun	Spun	Spun	Spun
		F	Spun	Spun	Spun	Spun
	Carded or Combed	M	Combed	Combed	Combed	Carded
		F	Combed	Combed	Combed	Carded
<u>INTENDED USE</u>		Uniform Material	Uniform Material	Uniform Material	Clothing and Saddlery	Clothing and Equipment

		MIL-C-10799 Type I/Class 1	MIL-C-10799 Type II/Class 2	MIL-C-10799 Type III/Class 3	MIL-C-10799 Type IV/Class 4	MIL-C-10799 Type V/Class 5
		Vinyl Coated Plain	Vinyl Coated Twill	Vinyl Coated Duck	Vinyl Coated Duck	Vinyl Coated Duck
FABRIC	Generic Name					
	Warp Ends/Inch					
	Filling Ends/Inch					
	Weight-Min. Oz./Sq. Yd.	7.0	14.0	15.5	12.0	22.0
	Max. Oz./Sq. Yd.	3.5	16.0	18.5	15.0	25.0
	Width					
	Minimum Roll Length	50 Yards	50 Yards	50 Yards	50 Yards	50 Yards
	Minimum Break	W				
		F				
	Minimum Tear	W				
		F				
	Maximum Shrinkage	W				
		F				
	Maximum Elongation	W				
		F				
	Maximum Non-Fibrous Mat.					
Processes:	Maximum Air Permeability					
	Singeing ?					
	Bleaching ?					
	Mercurizing ?					
	Dyeing ?	X	X	X	X	X
	Printing ?					
	Coating ?	X	X	X	X	X
	Fusing ?					
	Dyes Used ?	Vats	Vats	Vats	Vats	Vats
	Coating Used ?	Vinyl Polymer	Vinyl Polymer	Vinyl Polymer	Vinyl Polymer	Vinyl Polymer
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?	X	X	X	X	X
	Hydrostatic Resist ?	X	X	X	X	X
	Stiffness ?	X	X	X	X	X
	Coating Adhesion ?	X	X	X	X	X
	Coating Distribution ?	X	X	X	X	X
	Blocking ?	X	X	X	X	X
	Color Matching ?	X	X	X	X	X
	Labile Sulphur ?					
	Resistant to Insect					
	Repel ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?	X	X	X	X	X
	pH Test ?					
	Mildew Resistance ?	X	X	X	X	X
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?	X	X	X	X	X
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Needed					
FIBERS	Types of Fibers	Cotton	Cotton	Cotton	Cotton	Cotton
	% in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
YARNS	Cotton Count	W				
		F				
	Ply	W				
		F				
	Type Yarn	W				
		F				
	Carded or Combed	W				
		F				
INTENDED USE						
		Airplane ding Covers	Plastic Parts Covers	Insulated Tenting	Recognition Panels	Recognition Panels

FABRIC		MIL-C-15062	MIL-C-2184	MIL-C-29118	CCC-C-440 Type I	CCC-C-440 Type II	CCC-C-440 Type III
		Flannel Plain	Flannel Plain	Twill 3/1 Right	Cheesecloth Plain	Cheesecloth Plain	Cheesecloth Plain
	Warp Ends/Inch	26	60	110	41-47	26-30	37-43
	Filling Ends/Inch	23	69	47	33-39	22-26	22-28
	Weight-Min. Oz./Sq. Yd.	7.2	8.5	9.7	1.4	.90	1.5
	Max. Oz./Sq. Yd.	7.9	9.5	4.3	1.6	1.10	2.1
	Width	60"	60"				
	Minimum Roll Length	50 Yards	50 Yards	40 Yards	100-200 Yards	100-200 Yards	100-200 Yards
	Minimum Break	W 24	W 55	W 155	W 21	W 9	W 18
	Minimum Tear	F 16	F 55	F 55	F 9.5	F 4.5	F 6
	Maximum Shrinkage	W	4.0	W			
	Maximum Elongation	F	4.0	F			
	Maximum Non-Fibrous Mat.			2.0			
	Maximum Air Permeability						
Processes:	Singeing ?			X			
	Bleaching ?				X		X
	Mercerizing ?			X			
	Dyeing ?	X	Stock	X			
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?	Acid	Acid	Var			
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?		X				
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	X	X	X		X	X
	Labile Sulphur ?						
	Resistant to Insect						
	Moist ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?	X	X	X			
	pH Test ?	X	X	X			
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Mapped						
FIBERS	Types of Fibers	Wool	Wool	Cotton	Cotton	Cotton	Cotton
	% in Yarn	100.0	100.0	100.0	100.0	100.0	100.0
	% Tolerance	5.0	5.0				
	Staple Length						
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool	Fleeced or Pulled	Fleeced or Pulled				
	Grade Wool	>56's	>60's				
	Treatments	Mothproof	Mothproof				
	Type Aramid						
	Carbonization Temp.						
	Treatments						
YARNS	Cotton Count	W					
	Ply	F					
	Type Yarn	W	Singles	2-Ply	Singles	Singles	Singles
	Carded or Combed	F	Singles	Singles	Singles	Singles	Singles
		W	Spun	Spun	Spun	Spun	Spun
		F	Spun	Spun	Spun	Spun	Spun
		W	Carded	Carded	Carded	Carded	Carded
		F	Carded	Carded	Carded	Carded	Carded
INTENDED USE	Undercollar		Shirting	Radioactive	Polishing and	Polishing and	Polishing and
	Cloth			Protective	Cleaning	Cleaning	Cleaning
				Garments	Fabrics	Fabrics	Fabrics
VOLUME		27,783	8,584	152	7,583		

FABRIC	Generic Name	CCC-C-441	CCC-C-441	CCC-C-441
		Type 1/Class 1	Type 1/Class 1	Type 1/Class 2
	Warp Ends/Inch	29	40	46
	Filling Ends/Inch	136	126	126
	Weight-Min. Oz./Sq. Yd.	10.5		
	Weight-Max. Oz./Sq. Yd.			
	Width	40 Yards	40 Yards	40 Yards
	Minimum Roll Length			
	Minimum Break	M		
		F		
	Minimum Tear	M		
		F		
	Maximum Shrinkage	M	5.0	5.0
		F	3.0	3.0
	Maximum Elongation	M		
		F		
	Maximum Non-Fibrous Mat.			
	Maximum Air Permeability			
Processes:	Singeing ?			
	Bleaching ?			
	Mercerizing ?			
	Dyeing ?		I	I
	Printing ?			
	Coating ?			
	Fusing ?			
	Dyes Used ?		Yes	Yes
	Coating Used ?			
	Infrared Reflect ?			
	Odor Test ?			
	Water Repellent ?			
	Hydrostatic Resist ?			
	Stiffness ?			
	Coating Adhesion ?			
	Coating Distribution ?			
	Blocking ?			
	Color Matching ?		I	I
	Labile Sulphur ?		I	I
	Resistant to Insect			
	Repel ?			
	Leakage ?			
	Spray Rating ?			
	Colorfastness ?		I	I
	pH Test ?		I	I
	Mildew Resistance ?			
	Resin Finish ?			
	Ballistic Resistance ?			
	Antistatic ?			
	Heat Resistance ?			
	Flame Resistance ?			
	Durable Press			
	Shrink Resistant			
	Crease Resistant	Cotton	Cotton	Cotton
	Soil Release Treatment	100.0	100.0	100.0
	Antistatic Finish			
	Napped			
FIBERS	Types of Fibers			
	S in Yarn			
	S Tolerance			
	Staple Length			
	Denier			
	Tenacity			
	Cross-Section			
	Luster			
	Type Wool			
	Grade Wool			
	Treatments			
	Type Aramid			
	Carbonization Temp.			
	Treatments			
YARNS	Cotton Count	M		
		F		
	Ply	M	Singles	Singles
		F	Singles	Singles
	Type Yarn	M	Spun	Spun
		F	Spun	Spun
	Carded or Combed	M	Carded	Carded
		F	Carded	Carded
INTENDED USE		Clothing	Clothing	Clothing

		NIL-C-29137A Base Cloth	NIL-C-29137A Alternate	NIL-C-29137A Felt	NIL-C-29137A Felt	NIL-C-29137A Composite
<u>FABRIC</u>	Generic Name	Felt-Fabric Composite				
	Weave	Plain	Plain	--	--	--
	Warp Ends/Inch	42	40	--	--	--
	Filling Ends/Inch	26	24	--	--	--
	Weight-Min. Oz./Sq. Yd.	4.0	3.5	--	--	8.0
	Max. Oz./Sq. Yd.	4.4	3.9	--	--	12.5
	Width	--	--	--	--	--
	Minimum Roll Length	--	--	--	--	40 Yds.
	Minimum Break	M	--	--	--	50
		F	--	--	--	10
	Minimum Tear	M	--	--	--	--
		F	--	--	--	--
	Maximum Shrinkage	M	--	--	--	5.0%
		F	--	--	--	5.0%
	Maximum Elongation	M	--	--	--	--
		F	--	--	--	--
	Maximum Non-Fibrous Mat.	--	--	--	--	--
	Maximum Air Permeability	--	--	--	--	--
<u>Processes:</u>	Singeing ?	--	--	--	--	--
	Bleaching ?	--	--	--	--	--
	Mercerizing ?	--	--	--	--	--
	Dyeing ?	--	--	--	--	--
	Printing ?	--	--	--	--	--
	Coating ?	--	--	--	--	--
	Fusing ?	--	--	--	--	--
	Dyes Used ?	--	--	--	--	--
	Coatings Used ?	--	--	--	--	--
	Infrared Reflect ?	--	--	--	--	--
	Odor Test ?	--	--	--	--	--
	Water Repellent	--	--	--	--	--
	Hydrostatic Resist ?	--	--	--	--	--
	Stiffness ?	--	--	--	--	--
	Coating Adhesion ?	--	--	--	--	--
	Coating Distribution ?	--	--	--	--	--
	Blocking ?	--	--	--	--	--
	Color Matching ?	--	--	--	--	--
	Labile Sulphur ?	--	--	--	--	--
	Resistant to Insect Repel ?	--	--	--	--	--
	Leakage ?	--	--	--	--	--
	Spray Rating ?	--	--	--	--	--
	Colorfastness ?	--	--	--	--	--
	pH Test ?	--	--	--	--	5.0-8.0
	Mildew Resistance ?	--	--	--	--	--
	Resin Finish ?	--	--	--	--	--
	Ballistic Resistance ?	--	--	--	--	--
	Antistatic ?	--	--	--	--	--
	Heat Resistance ?	--	--	--	--	--
	Flame Resistance ?	--	--	--	--	--
	Durable Press	--	--	--	--	--
	Shrink Resistant	--	--	--	--	--
	Crease Resistant	--	--	--	--	--
	Soil Release Treatment	--	--	--	--	--
	Antistatic Finish	--	--	--	--	--
	Yapped	--	--	--	--	--
	Thickness (Max)	.020"	--	--	--	.060"
	(Min)	.016"	--	--	--	.040"
<u>FIBERS</u>	Types of Fibers	Cotton	Rayon	Wool	Rayon and/or Cotton	Rest
	% in Yarn	100	100	40	--	--
	% Tolerance	--	--	Min.	--	--
	Staple Length	--	--	--	--	--
	Denier	--	--	--	--	--
	Tenacity	--	--	--	--	--
	Cross-Section	--	--	--	--	--
	Luster	--	--	--	--	--
	Type Wool	--	--	--	--	--
	Grade Wool	--	--	Fleece or Pulled or Both	--	--
	Treatments	--	--	Reprocessed or Reused & Moths	--	--
	Type Aramid	--	--	Mothproof	--	--
	Carbonization Temp.	--	--	--	--	--
	Treatments	--	--	--	--	Wetherproof
<u>YARNS</u>	Cotton Count	M	--	--	--	--
		F	--	--	--	--
	Ply	M	1	--	--	--
		F	1	--	--	--
	Type Yarn	M	Spun	--	--	--
		F	Spun	--	--	--
	Carded or Combed	M	Card	--	--	--
		F	Card	--	--	--
<u>INTENDED USE</u>		Undercollar	Undercollar	Undercollar	Undercollar	Undercollar

# BLENDÉ FABRICS

		NIL-C-44031	NIL-C-44031	NIL-C-44031	NIL-C-44031
		Class 1	Class 1	Class 2	Class 2
FABRIC	Generic Name		Full		Full
	Neck		2/1 Left		2/1 Left
	Warp Ends/Inch		36		36
	Filling Ends/Inch		54		54
	Weight-Min. Oz./Sq. Yd.		6.8		7.0
	Max. Oz./Sq. Yd.		7.3		7.7
	Width				
	Minimum Roll Length		40 Yards		40 Yards
	Minimum Break	M	200		190
		F	125		115
	Minimum Tear	M	11		10
		F	3		7
	Maximum Shrinkage	M	2.0		2.0
		F	2.0		2.0
	Maximum Elongation	M	2.0		2.0
		F	2.0		2.0
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability		25		10
Processes:	Singeing ?		X		X
	Bleaching ?				
	Mercurizing ?		X		X
	Dyeing ?		X		X
	Printing ?		Roller or Screen		Roller or Screen
	Coating ?				
	Dyes Used ?				
	Coating Used ?		Vat Dyes w/Sulphur Black, Acid Blue		Vat Dyes w/Sulphur Black, Acid Blue
	Infrared Reflect ?		X		X
	Odor Test ?				
	Water Repellent ?				X
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?		X		X
	Labile Sulphur ?		X		X
	Resistant to Insect Repel ?				
	Leakage ?				
	Spray Rating ?		X		X
	Colorfastness ?		X		X
	PH Test ?		X		X
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Curable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Wadded				
FIBERS	Types of Fabric	Cotton	Nylon	Cotton	Nylon
	% in Yarn	50.0	50.0	50.0	50.0
	% Tolerance	±5	±5	±5	±5
	Staple Length		1-1/2"		1-1/2"
	Denier		2.25-2.5		2.25-2.5
	Tenacity		High		High
	Cross-Section		Round		Round
	Luster		Semi-dull		Semi-dull
	Type Wool				
	Grade Wool				
	Treatments				
	Type Abrad				
	Carbonization Temp.				
	Treatments				
YARNS	Cotton Count	M			
		F			
	Ply	M	Singles		Singles
		F	Singles		Singles
	Type Yarn	M	Soun		Soun
INTENDED USE		F	Soun		Soun
	Carded or Combed	M	Carded		Carded
		F	Carded		Carded
JOL-4E					
		Combat Camouflage Uniforms for Woodland Areas		Waterproof Combat Uniforms for Woodland Areas	
		26,595,592			

FABRIC		HTL-C-43482	HTL-C-43482	HTL-C-43482	HTL-C-43482	LPP DES	LPP DES
		Type 1/Class 1	Type 1/Class 1	Type 1/Class 2	Type 1/Class 2	18-718	18-718
FABRIC	General Name	Poplin	Poplin	Poplin	Poplin	2/1 Left Twist	86
	Warp Ends/Inch	104	104	104	104	54	54
	Filling Ends/Inch	54	54	54	54	54	54
	Weight - Wt. 32/54. Yd.	6.0	6.0	6.0	6.0	6.8	6.8
	Max. 32/54. Yd.	6.7	6.7	6.7	6.7	7.3	7.3
	Width	34"	34"	34"	34"	1	1
	(Inclusive of Selvage)						
	Minimum Roll Length	40 Yds.	40 Yds.	40 Yds.	40 Yds.	40 Yds.	40 Yds.
	Minimum Break	165	165	165	165	200	200
	Minimum Tear	70	70	70	70	125	125
	Maximum Shrinkage	4.0	4.0	4.0	4.0	11	11
	Maximum Elongation	2.0	2.0	2.0	2.0	3	3
	Maximum Non-Fibrous Mat.	3.0	3.0	3.0	3.0	2.0	2.0
	Maximum Air Permeability	1.0	1.0	1.0	1.0	2.0	2.0
	Processes:	2.0	2.0	2.0	2.0	2.0	2.0
FABRIC	Singeing	1.5	1.5	4.0	4.0	25.0	25.0
	Bleaching					1	1
	Mercurizing					1	1
	Dyeing	1	1	1	1	1	1
	Printing					1	1
	Coating						
	Finishing						
	Dyes Used	Yes & Disperse	Yes & Disperse	Yes & Disperse	Yes & Disperse		
	Coating Used					1	1
	Infrared Reflect						
	Clear Treat						
	Water Repellent	Quarol	Quarol	Fluorocarbon Type	Fluorocarbon Type		
	Hydrostatic Resist	45, 45, -	45, 45, -	40, 40, 40	40, 40, 40		
	Stiffness						
	Coating Adhesion						
FABRIC	Coating Distribution						
	Bleaching						
	Color Matching	1	1	1	1	1	1
	Labile Solvent					1	1
	Resistance to Insect						
	Repeal						
	Leakage						
	Sewage Rating	100, 100, 90	100, 100, 90	100, 100, 90	100, 100, 90		
	Colorfastness	1	1	1	1	1	1
	pH Test	5.5-6.5	5.5-6.5	5.5-6.5	5.5-6.5	5.5-6.5	5.5-6.5
	Mildew Resistance						
	Moist Finish						
	Ballistic Resistance						
	Antistatic						
	Heat Resistance	1	1	1	1		
FIBRES	Flame Resistance						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Repeal						
	Types of Fibers	Polyester	Cotton	Polyester	Cotton	Nylon	Cotton
	Stitch Type	50	Rest	50-55	Rest	50S	Rest
	Stitch Length	56	Rest	56	Rest	1-1/2"	2.5
	Denier						
	Tenacity						
	Cross-Section						
	Luster	Nonoptically	Nonoptically			Round	
	Brightened	Brightened	Brightened				
FIBRES	Type Wool						
	Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
	Cotton Count	4					
	Ply	2	2	2	2	1	1
	Type Yarn	Spun	Spun	Spun	Spun		
	Carved or Combed	Spun	Spun	Spun	Spun		
			Both		Both		
			Both				
INTERFUSE USE							

		NIL-C-21881		NIL-C-21881		NIL-C-21881		NIL-C-21881	
		Type II/Class 1		Type II/Class 1		Type II/Class 2		Type II/Class 2	
<u>FABRIC</u>	Generic Name	Poplin		Poplin		Poplin		Poplin	
	Weave	Plain		Plain		Plain		Plain	
	Warp Ends/Inch	100		100		100		100	
	Filling Ends/Inch	40		40		40		40	
	Weight-Min. Oz./Sq. Yd.	4.0		4.0		4.0		4.0	
	Max. Oz./Sq. Yd.	4.5		4.5		4.5		4.5	
	Width	?		?		?		?	
	Minimum Roll Length	40 Yds.		40 Yds.		40 Yds.		40 Yds.	
	Minimum Break	100		100		100		100	
	Minimum Tear	40		40		40		40	
	Maximum Shrinkage	2		2		2		2	
	Maximum Elongation	2		2		2		2	
	Maximum Non-Fibrous Mat.	2		2		2		2	
	Maximum Air Permeability								
	Processes:								
	Singeing ?								
	Bleaching ?					White X		White X	
	Mercerizing ?								
	Dyeing ?	Khaki X		Khaki X					
	Printing ?								
	Coating ?								
	Fusing ?								
	Dyes Used ?								
	Coating Used ?								
	Infrared Reflect ?								
	Odor Test ?								
	Water Repellent ?								
	Hydrostatic Resist ?								
	Stiffness ?								
	Coating Adhesion ?								
	Coating Distribution ?								
	Blocking ?								
	Color Matching ?	X		X		X		X	
	Labile Sulphur ?								
	Resistance to Insect Repel ?								
	Leakage ?								
	Spray Coating ?	90,90,80		90,90,80		90,90,80		90,90,80	
	Colorfastness ?	X		X					
	pH Test ?	5.0-8.0		5.0-8.0		5.0-8.0		5.0-8.0	
	Mildew Resistance ?								
	Resin Finish ?								
	Ballistic Resistance ?								
	Antistatic ?								
	Heat Resistance ?								
	Flame Resistance ?								
	Durable Press								
	Shrink Resistant								
	Crease Resistant								
	Soil Release Treatment								
	Antistatic Finish								
	Mapped								
<u>FIBERS</u>	Types of Fibers	Polyester		Cotton		Polyester		Cotton	
	Spin Yarn	65		32		55		32	
	% Tolerance	3		3		3		3	
	Staple Length								
	Denier								
	Tenacity								
	Cross-Section								
	Luster								
	Type Wool								
	Grade Wool								
	Treatments								
	Type Aramid								
	Carbonization Temp.								
	Treatments								
<u>YARNS</u>	Cotton Count								
	Ply	1		1		1		1	
	Type Yarn	Spun		Spun		Spun		Spun	
	Carded or Combed	Combed		Combed		Combed		Combed	
<u>INTENDED USE</u>		Naval Shirts		Naval Shirts		Naval Shirts		Naval Shirts	

		MIL-C-21881	MIL-C-21881	MIL-C-21881	MIL-C-21881
		Type III/Class 1	Type III/Class 1	Type III/Class 2	Type III/Class 2
<u>FABRIC</u>	Generic Name	Poplin	Poplin	Poplin	Poplin
	Weave	Plain	Plain	Plain	Plain
	Warp Ends/Inch	105	105	105	105
	Filling Ends/Inch	55	55	55	55
	Weight-Min. Oz./Sq. Yd.	4.7	4.7	4.7	4.7
	-Max. Oz./Sq. Yd.	5.3	5.3	5.3	5.3
	Width	?	?	?	?
	Minimum Roll Length	40 Yds.	40 Yds.	40 Yds.	40 Yds.
	Minimum Break	150	150	150	150
		70	70	70	70
	Minimum Tear				
	Maximum Shrinkage	2	2	2	2
		2	2	2	2
	Maximum Elongation	2	2	2	2
		2	2	2	2
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability				
	Singeing ?				
	Bleaching ?				
<u>Processes:</u>	Mercerizing ?				
	Dyeing ?	Tan X	Tan X	Green X	Green X
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?				
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?	X	X	X	X
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur?				
	Resistant to Insect				
	Repel ?				
	Leakage ?				
<u>FIBERS</u>	Spray Rating ?	90,90,80	90,90,80	90,90,80	90,90,80
	Colorfastness ?	X	X	X	X
	pH Test ?	5.0-8.0	5.0-8.0	5.0-8.0	5.0-8.0
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Croise Resistant				
	Sol Release Treatment				
	Antistatic Finish				
	No Jod				
	Types of Fibers	Polyester	Cotton	Polyester	Cotton
	% in Yarn	65	32	65	32
	% Tolerance	3	+	3	+
	Staple Length				
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<u>YARNS</u>	Cotton Count				
	Ply	1	1	1	1
		1	1	1	1
	Type Yarn	Spun	Spun	Spun	Spun
		Spun	Spun	Spun	Spun
	Carded or Combed		Combed		Combed
			Combed		Combed
<u>INTENDED USE</u>		Swimming Trunks	Swimming Trunks	Swimming Trunks	Swimming Trunks

		MIL-C-43191 Class 1	MIL-C-43191 Class 1	MIL-C-43191 Class 1	MIL-C-43191 Class 2	MIL-C-43191 Class 3	MIL-C-43191 Class 3
<b>FABRIC</b>	Generic Name	Sateen		Sateen		Sateen	
	Wave	S-Harness		S-Harness		S-Harness	
	Warp Ends/Inch	126		126		126	
	Filling Ends/Inch	72		72		72	
	Weight-Min. Oz./Sq. Yd.	8.5		8.5		8.5	
	Max. Oz./Sq. Yd.	9.0		9.0		9.0	
	Width	50 Yards		50 Yards		50 Yards	
	Minimum Roll Length	225		225		225	
	Minimum Break	225		225		225	
	Minimum Tear	9		9		9	
	Maximum Shrinkage	2.0		2.0		2.0	
	Maximum Elongation	2.0		2.0		2.0	
	Maximum Non-Fibrous Mat.	2.0		2.0		2.0	
	Maximum Air Permeability	7.0		7.0		7.0	
<b>Processes:</b>	Singeing ?	X		X		X	
	Bleaching ?	X		X		X	
	Mercerizing ?	X		X		X	
	Dyeing ?	X		X		X	
	Printing ?					Roller or Screen	
	Coating ?						
	Fusing ?						
	Dyes Used ?	Acid/Vat		Acid/Vat		Acid/Vat	
	Coating Used ?					Vat/Sulphur Black	
	Infrared Reflect ?	X		X		X	
	Odor Test ?					X	
	Water Repellent			X		X	
	Hydrostatic Resist ?	X		X		X	
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	X		X		X	
	Labile Sulphur ?	X		X		X	
	Resistant to Insect						
	Resist ?						
	Leakage ?						
	Spray Rating ?	X		X		X	
	Colorfastness ?	X		X		X	
	pH Test ?	X		X		X	
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Flame Resistant ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Handed						
<b>FIBERS</b>	Type of Fibers	Cotton	Nylon	Cotton	Nylon	Cotton	Nylon
	S in Turn	50	50	50	50	50	50
	S Tolerance	-5	+5	-5	+5	-5	+5
	Staple Length	1.5"		1.5"		1.5"	
	Denier	2.25-2.5		2.25-2.5		2.25-2.5	
	Tenacity	High		High		High	
	Cross-Section	Round		Round		Round	
	Luster	Semi-dull		Semi-dull		Semi-dull	
	Type Wool						
	Grade Wool						
	Treatments						
	Type Acid						
	Carbonization Temp.						
	Treatments						
<b>YARNS</b>	Cotton Count	M		M		M	
	Ply	M	Singles	M	Singles	M	Singles
	Type Yarn	M	Singles	M	Singles	M	Singles
	Carded or Combed	M	Spun	M	Spun	M	Spun
		F	Spun	F	Spun	F	Spun
		F	Carded	F	Carded	F	Carded
		F	Carded	F	Carded	F	Carded
<b>INTENDED USE</b>	Wind and Thermal	Wind and Thermal	Wind and Thermal	Wind and Thermal	Wind and Thermal	Wind and Thermal	Wind and Thermal
	Resistant Clothing	Resistant Clothing	Resistant Clothing	Resistant Clothing	Resistant Clothing	Resistant Clothing	Resistant Clothing

		MIL-C-21115 Type III/Class I	MIL-C-21115 Type III/Class I	MIL-C-21115 Type III/Class I	MIL-C-21115 Type III/Class I
FABRIC	Generic Name	Tropical Cloth	Tropical Cloth	Tropical Cloth	Tropical Cloth
	Weave	Plain	Plain	Plain	Plain
	Warp Ends/Inch	50	48	56	56
	Filling Ends/Inch	46	46	42	42
	Weight-Min. Oz./Sq. Yd.	6.4	5.5	5.5	5.5
	Max. Oz./Sq. Yd.	7.1	—	6.1	6.1
	Width	Min. 60"	Min. 60"	Min. 60"	Min. 60"
	Minimum Roll Length	50 Yds.	50 Yds.	50 Yds.	50 Yds.
	Minimum Area	55	50	100	100
	Minimum Tear	50	40	50	50
	Maximum Shrinkage	4.0	4.0	2.5	2.5
	Maximum Elongation	3.0	3.0	2.0	2.0
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability				
Processes:	Singeing ?			X	X
	Bleaching ?				
	Mercerizing ?				
	Stock Dyeing ?	X	X	X	X
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?	Various	Various	Various	Various
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur ?				
	Resistant to Insect				
	Repel ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?	X	X	X	X
	pH Test ?	5.5-8.5	5.5-8.5	5.5-8.5	5.5-8.5
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Wadded				
FIBERS	Types of Fibers	Wool	Wool	Wool	Polyester
	% of Yarn	95	95	40 Min.	55 Min.
	% Tolerance	—	—	—	+6
	Staple Length	—	—	—	3"
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled	
	Grade Wool	64's Min.	54's Min.	54's Min.	
	Treatments	Mothproofing	Mothproofing	Mothproofing	
	Type Aramid				
FIBRE	Carbonization Temp.				
	Treatments				
	Cotton Count				
	Staple				
	Type Yarn	Sown	Sown	Sown	Sown
FIBRE	Carded or Combed	Combed	Combed	Combed	Combed
		Combed	Combed	Combed	Combed
EXTENDED USE	Shirts	Shirts	Shirts	Shirts	Shirts
	Coats	Coats	Coats	Coats	Coats
	Trousers	Trousers	Trousers	Trousers	Trousers

		WTL-C-21115 Type III/Class 2	WTL-C-21115 Type III/Class 2	WTL-C-21115 Type III/Class 2	WTL-C-21115 Type III/Class 2
<b>FABRIC</b>	Generic Name	Tropical Cloth	Tropical Cloth	Tropical Cloth	Tropical Cloth
	Wave	Plain	Plain	Plain	Plain
	Wave Crest/Inch	55	55	50	50
	Filling Crest/Inch	40	40	40	40
	Weight-Min. Oz./Sq. Yd.	5.0	5.0	4.1	4.1
	Max. Oz./Sq. Yd.	—	—	4.8	4.8
	Width	60" Min.	60" Min.	60" Min.	50" Min.
	Minimum Roll Length	50 Yds.	50 Yds.	50 Yds.	50 Yds.
	Minimum Gross	70	70	100	100
	Minimum Tear	60	60	40	30
	Maximum Shrinkage	4.0	4.0	2.5	2.5
	Maximum Elongation	3.0	3.0	2.0	2.0
	Maximum Non-Fibered Weave				
	Maximum Air Permeability				
	Slipping ?	2	1	1	1
	Stitching ?				
	Noncorrosive ?				
	Stack Dyeing ?	2	1	1	1
	Swelling ?				
	Coating ?				
	Paint ?				
	Dyes Used ?	Various	Various	Various	Various
<b>PROCESSING</b>	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	1	1	1	1
	Labile Solvent ?				
	Resistant to Insects				
	Reel ?				
	Leakage ?				
	Spray Resistant ?				
	Colorfastness ?	1	1	1	1
	Oil Test ?	5.5-6.5	5.5-6.5	5.5-6.5	5.5-6.5
	Weld Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
<b>FIBERS</b>	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Shrink Proof				
	Shrink Resistant				
	Cresol Resistant				
	Salt Release Treatment				
	Antistatic Finish				
	Notes				
	Type of Fibers	Wool	Polyester	Wool	Polyester
<b>FINISHES</b>	S of Turn	40 Min.	55 Min.	40 Min.	55 Min.
	S Tolerance	—	±5	—	±5
	Stable Length	—	3"	—	3"
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool	Fleeced or Pelted	Fleeced or Pelted	Fleeced or Pelted	Fleeced or Pelted
	Grade Wool	54's Min.	54's Min.	54's Min.	54's Min.
	Treatments	Wetproofing	Wetproofing	Wetproofing	Wetproofing
<b>PAINTS</b>	Type Acrylic				
	Carbonization Temp.				
	Treatments				
	Cotton Count	2	2	2	2
	Ply	1	1	1	1
<b>ATTACHMENT USE</b>	Type Yarn	Seam	Seam	Seam	Seam
	Carbons or Carbons	Carbons	Carbons	Carbons	Carbons
		Carbons	Carbons	Carbons	Carbons
		Carbons	Carbons	Carbons	Carbons
		Carbons	Carbons	Carbons	Carbons

		CCC-C-430 Style A, Type I Class 1	CCC-C-430 Style A, Type I Class 2	CCC-C-430 Style A, Type II Class 1	CCC-C-430 Style A, Type II Class 2
<b>FABRIC</b>	Generic Name	Muslin	Muslin	Muslin	Muslin
	Weave	Plain	Plain	Plain	Plain
	Min. Warp Ends/Inch	68	74	74	74
	Min. Filling Ends/Inch	72	69	66	69
	Weight-Min. Oz./Sq. Yd.	4.7	4.6	4.5	4.6
	Weight-Max. Oz./Sq. Yd.	--	--	--	--
	Width	?	?	?	?
	Minimum Roll Length	50 Yds.	50 Yds.	50 Yds.	50 Yds.
	Minimum Break	M 70	M 70	M 70	M 70
	Minimum Tear	F 70	F 70	F 70	F 70
	Maximum Shrinkage	M --	M 2.0	M --	M 2.0
	Maximum Elongation	F --	F 2.0	F --	F 2.0
	Maximum Non-Fibrous Mat.	M 12.0	M 12.0	M 4.0	M 4.0
	Maximum Air Permeability				
	Singeing ?				
	Bleaching ?	No	No	White X	White X
	Mercerizing ?			or	or
	Dyeing ?			X	X
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?				
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur? (If Dyed)	X	X	X	X
<b>Processes:</b>	Resistant to Insect Repel ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?	X	X	X	X
	pH Test ?	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Wapped				
<b>FIBERS</b>	Types of Fibers	Cotton	Cotton	Cotton	Cotton
	% of Yarn	100	100	100	100
	% Tolerance	0	0	0	0
	Staple Length				
	Diameter				
	Tenacity				
	Cross-Section				
	Luster				
	Type Weave				
	Grade Weave				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<b>YARNS</b>	Cotton Count	M	M	M	M
	Ply	F	F	F	F
	Type Yarn	M	M	M	M
	Carded or Combed	F	F	F	F
		Spun	Spun	Spun	Spun
		Spun	Spun	Spun	Spun
<b>INTENDED USE</b>		Carded	Carded	Carded	Carded
		Carded	Carded	Carded	Carded

		CCC-C-430 Style 8, Type I Class 1	CCC-C-430 Style 8, Type I Class 2	CCC-C-430 Style 8, Type II Class 1	CCC-C-430 Style 8, Type II Class 2
<u>FABRIC</u>	Generic Name	Muslin	Muslin	Muslin	Muslin
	Weave	Plain	Plain	Plain	Plain
	Min. Warp Ends/Inch	64	70	68	70
	Min. Filling Ends/Inch	64	63	60	63
	Weight-Min. Oz./Sq. Yd.	4.1	4.2	4.0	4.1
	Max. Oz./Sq. Yd.	--	--	--	--
	Width	?	?	?	?
	Minimum Roll Length	50 Yds.	50 Yds.	50 Yds.	50 Yds.
	Minimum Break	55	55	55	55
	Minimum Tear	55	55	55	55
	Maximum Shrinkage	--	2.0	--	2.0
	Maximum Elongation	--	2.0	--	2.0
	Maximum Non-Fibrous Mat.	12.0	12.0	4.0	4.0
	Maximum Air Permeability				
	Singeing ?				
	Bleaching ?	No	No	White I	White I
	Mercerizing ?			or	or
	Dyeing ?			I	I
	Printing ?				
	Coating ?				
	Finishing ?				
	Dyes Used ?				
	Coatings Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
<u>PROCESSES:</u>	Color Matching ?	I	I	I	I
	Labile Solvent ? (if dyed)	I	I	I	I
	Resistant to Insect				
	Repel ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?	I	I	I	I
	pH Test ?	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Washed				
	Types of Fibers	Cotton	Cotton	Cotton	Cotton
	% of Yarn	100	100	100	100
	% Tolerance	0	0	0	0
	Staple Length				
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<u>YARNS</u>	Cotton Count	M	M	M	M
	Ply	F	F	F	F
	Type Yarn	M	M	M	M
	Carded or Combed	F	F	F	F
		Scum	Scum	Scum	Scum
		Carded	Carded	Carded	Carded

INTENDED USE

		CCC-C-430	CCC-C-430	CCC-C-430	CCC-C-430	CCC-C-430
		Style C, Type II	Style D, Type II	Style D, Type II	Style E, Type II	Style E, Type II
		Class 1 or 2	Class 1 or 2	Class 1 or 2	Class 1 or 2	Class 1 or 2
<u>FABRIC</u>	Generic name	Porcelo	Porcelo	Porcelo	Porcelo	Porcelo
	above	Plain	Plain	Plain	Plain	Plain
	Yarn Ends/Inch	90	90	90	90	90
	Filling Ends/Inch	82	82	82	82	82
	Weight-ozs. 36./Sq. Yd.	3.5	3.5	3.5	3.5	3.5
	Max. 36./Sq. Yd.	--	--	--	--	--
	Stretch					
	Minimum Split Length					
	Minimum Break	4	4	4	4	4
	Minimum Tear	4	4	4	4	4
	(Class 2) Maximum Shrinkage	2.0	2.0	2.0	2.0	2.0
	Maximum Elongation	2.0	2.0	2.0	2.0	2.0
	Maximum Non-Ferrous Met.	4.0	6.0	6.0	6.0	6.0
	Maximum Air Permeability					
	Processes:					
	Bleaching ?					
	Dyeing ?					
	Finishing ?					
	Pressing ?					
	Casting ?					
	Fusing ?					
	Dyes Used ?					
	Coating Used ?					
	Infrared Reflect ?					
	Other Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?					
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Bleaching ?					
	Color Retention ?					
	Labile Sulfone? (if Dyed)	1	1	1	1	1
	Resistance to insect					
	Ravel ?					
	Lockup ?					
	Spray Rating ?					
	Colorfastness ?					
	pH Test ?					
	Widow Resistance ?					
	Basis Weight ?					
	Ballistic Resistance ?					
	Acoustic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Self Release Treatment					
	Antistatic Finish					
	Napless					
<u>FIBERS</u>	Types of Fibers	Cotton	Polyester	Cotton	Polyester	Cotton
	S of Yarn	100	65	Rest	50	Rest
	S Tolerance	C	±3	Rest	±3	Rest
	Staple Length					
	Denier					
	Tenacity					
	Crash-Section					
	Luster					
	Type Wash					
	Grain Wash					
	Treatment					
	Type Aramid					
	Concentration Temp.					
	Treatment					
<u>YARN</u>	Cotton Count	100	65	Rest	50	Rest
	Ply	1	1	1	1	1
	Type Yarn	1	1	1	1	1
	Wash	1	1	1	1	1
	Crash or Crash	1	1	1	1	1
<u>INTERFIBER USE</u>						



		NHL-C-823	NHL-C-823	NHL-C-823	NHL-C-823	NHL-C-823	NHL-C-823
		Type I	Type I	Type II	Type II	Type II	Type II
FABRIC		Class 1	Class 2	Class 1	Class 1	Class 2	Class 2
		Serge	Serge	Serge	Serge	Serge	Serge
	Warp Ends/Inch	2 Ws, 2 Dms	2 Ws, 2 Dms	2 Ws, 2 Dms	2 Ws, 2 Dms	2 Ws, 2 Dms	2 Ws, 2 Dms
	Filling Ends/Inch	4 Harness Right Twill	4 Harness Right Twill	4 Harness Right Twill	4 Harness Right Twill	4 Harness Right Twill	4 Harness Right Twill
	Warp Ends/Inch	74	70	11.6	11.6	10.3	10.3
	Filling Ends/Inch	74	62	11.6	11.6	10.3	10.3
	Weight-Mil. Oz./Sq. Yd.	7.7	7.7	11.6	11.6	10.3	10.3
	Weight-Mil. Oz./Sq. Yd.	7.7	7.7	11.6	11.6	10.3	10.3
	Width	60" Min.	60" Min.	60" Min.	60" Min.	60" Min.	60" Min.
	Minimum Roll Length	50 Yds.	50 Yds.	50 Yds.	50 Yds.	50 Yds.	50 Yds.
	Maximum Break	70	70	120	120	120	120
	Maximum Tear	70	70	120	120	120	120
	Maximum Shrinkage	5.0	5.0	4.0	4.0	4.0	4.0
	Maximum Elongation	3.0	3.0	2.5	2.5	2.5	2.5
Processes:	Maximum Head Fibers Met.						
	Maximum Air Permeability						
	Singeing ?						
	Shearing ?						
	Worshipping ?						
	Stock Dyeing ?	2	2	2	2	2	2
	Printing ?						
	Coating ?						
	Dyes Used ?	Various	Various	Various	Various	Various	Various
	Coating Used ?						
	Infrared Surface ?						
	Heat Test ?						
	Water Resistant ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Shocking ?						
	Color Matching ?	2	2	2	2	2	2
	Labile Solvent ?						
	Resistant to Insect.						
	Resist ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?	2	2	2	2	2	2
	Oil Test ?	1.5-4.5	1.5-4.5	1.5-4.5	1.5-4.5	1.5-4.5	1.5-4.5
	Wides Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Acoustic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Washed						
FIBERS	Types of Fibers	Wool	Wool	Wool	Nylon	Wool	Nylon
	% of Form	95	95	95-95	Rest	95-95	Rest
	Staple Length	Various	Various	60-65	---	60-65	---
	Denier						
	Tenacity						
	Crust-Section						
	Juster						
	Type Wool						
	Minimum Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
YARN	Cotton Count	2	2	2	2	2	2
	Ply	2	2	2	2	2	2
	Type Yarn	Sewn	Sewn	Sewn	Sewn	Sewn	Sewn
	Combed or Combed	Combed	Combed	Combed	Combed	Combed	Combed
INTERFACES	Service	Service	Service	Service	Service	Service	Service
	Suit-Dress & Dress Uniforms	Suit-Dress & Dress Uniforms	Suit-Dress & Dress Uniforms	Suit-Dress & Dress Uniforms	Suit-Dress & Dress Uniforms	Suit-Dress & Dress Uniforms	Suit-Dress & Dress Uniforms

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		MIL-C-43479	MIL-C-43479	MIL-C-43479	MIL-C-43479	MIL-C-43479	MIL-C-43479
		Type 1	Type 1	Type 1	Type 1	Type 1	Type 1
		Class 1	Class 1	Class 2	Class 2	Class 3	Class 3
<u>FABRIC</u>	Generic Name	Broadcloth	Broadcloth	Broadcloth	Broadcloth	Broadcloth	Broadcloth
	weave	Plain	Plain	Plain	Plain	Plain	Plain
	End-and-End	End-and-End	End-and-End	End-and-End	End-and-End	End-and-End	End-and-End
	Warp Ends/Inch	132	132	132	132	132	132
	Filling Ends/Inch	70	70	70	70	70	70
	Weight-Min. Oz./Sq. Yd.	2.8	2.8	2.8	2.8	2.8	2.8
	-Max. Oz./Sq. Yd.	3.4	3.4	3.4	3.4	3.4	3.4
	Width	44" Min.	44" Min.	44" Min.	44" Min.	44" Min.	44" Min.
	Minimum Roll Length	40 Yd. Min.	40 Yd. Min.	40 Yd. Min.	40 Yd. Min.	40 Yd. Min.	40 Yd. Min.
	Minimum Break	90	90	90	90	90	90
	Minimum Tear	40	40	40	40	40	40
	Maximum Shrinkage	2	2	2	2	2	2
	Maximum Elongation	2	2	2	2	2	2
	Maximum Non-Fibrous Mat.	2	2	2	2	2	2
	Maximum Air Permeability	2	2	2	2	2	2
<u>Processes:</u>	Singeing ?	X	X	X	X	X	X
	Bleaching ?	White X	White X	X	X	X	X
	Mercerizing ?	X	X	X	X	X	X
	Dyeing ?			X	X	X	X
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?			Disperse	Yot	Disperse	Yot
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	X	X	X	X	X	X
	Labile Sulphur ?						
	Resistant to Insect						
	Repeel ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?			X	X	X	X
	pH Test ?	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Happed						
	Permanent Press					X	X
<u>FIBERS</u>	Types of Fibers	Polyester	Cotton	Polyester	Cotton	Polyester	Cotton
	S in yarn	65	Rest	65	Rest	65	Rest
	S Tolerance	±3		±3		±3	
	Staple Length						
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type wool						
	Grade wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
<u>YARNS</u>	Cotton Count	W					
		F					
	Ply	W	1	1	1	1	1
		F	1	1	1	1	1
	Type Yarn	W	Spun	Spun	Spun	Spun	Spun
		F	Spun	Spun	Spun	Spun	Spun
	Carded or Combed	W	Combed	Combed	Combed	Combed	Combed
		F					
<u>INTENDED USE</u>		Shirts	Shirts	Shirts	Shirts	Shirts	Shirts

		NIL-C-3920 Type I Class 4	NIL-C-3920 Type I Class 4	NIL-C-3920 Type II Class 3	NIL-C-3920 Type II Class 3
<b>FABRIC</b>	Generic Name	Broadcloth	Broadcloth	Broadcloth	Broadcloth
	Grade	Plain	Plain	Plain	Plain
	End-and-End	End-and-End	End-and-End	End-and-End	End-and-End
	Warp Ends/Inch	132	132	100	100
	Filling Ends/Inch	70	70	54	54
	Weight-Ave. Oz./Sq. Yd.	2.8	2.8	3.2	3.2
	Max. Oz./Sq. Yd.	3.4	3.4	3.7	3.7
	Width	48" Min.	48" Min.	48" Min.	48" Min.
	Minimum Roll Length	40 Yd. Min.	40 Yd. Min.	40 Yd. Min.	40 Yd. Min.
	Minimum Break	30	30	70	70
	Minimum Tear	40	40	52	52
	Maximum Shrinkage	2	2	2	2
	Maximum Elongation	2	2	2	2
	Maximum Elongation	2	2	2	2
	Maximum Non-Fibrous Mat.	2	2	2	2
	Maximum Air Permeability				
<b>PROCESS:</b>	Singeing ?	1	1	1	1
	Bleaching ?	White 1	White 1	White 1	White 1
	Wet Finishing ?	1	1	1	1
	Dyeing ?				
	Printing ?				
	Coating ?				
	Finishing ?				
	Dyes Used ?				
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blackening ?				
	Color Matching ?	1	1	1	1
	Labile Sulphur ?				
	Resistant to Insects				
	Repeal ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?				
	pH Test ?	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Shrink Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Washed				
	Permanent Press	1	1		
<b>FIBERS</b>	Type of Fibers	Polyester	Cotton	Polyester	Cotton
	S in Yarn	65	80	65	80
	% Tolerance	±3		±3	
	Scale Length				
	Denier				
	Tenacity				
	Cross-section				
	Wettest				
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<b>YARNS</b>	Cotton Count	4	4	4	4
	Wt	4	4	4	4
	Wt	1	1	1	1
	Type Yarn	Spun	Spun	Spun	Spun
	Carded or Combed	Carded	Carded	Carded	Carded
<b>INTENDED USE</b>		Shirts	Shirts		

FABRIC		MIL-C-3924 Class 1		MIL-C-3924 Class 1		MIL-C-3924 Class 2		MIL-C-3924 Class 2		MIL-C-3924 Class 3		MIL-C-3924 Class 3	
		Oxford (2 Warp Ends Weave as 1)		Oxford (2 Warp Ends Weave as 1)		Oxford (2 Warp Ends Weave as 1)		Oxford (2 Warp Ends Weave as 1)		Oxford (2 Warp Ends Weave as 1)		Oxford (2 Warp Ends Weave as 1)	
	Warp Ends/Inch	---		160		---		160		---		160	
	Filling Ends/Inch	74		---		74		---		74		---	
	Weight-Min. Oz./Sq. Yd.	4.8		4.8		4.8		4.8		4.8		4.8	
	Max. Oz./Sq. Yd.	5.8		5.8		5.8		5.8		5.8		5.8	
	Width	?		?		?		?		?		?	
	Minimum Roll Length	40 Yards		40 Yards		40 Yards		40 Yards		40 Yards		40 Yards	
	Minimum Break	---		175		---		175		---		150	
	Minimum Tear	138		---		155		---		125		---	
	Maximum Shrinkage	1.0		1.0		1.0		1.0		1.0		1.0	
	Maximum Elongation	1.0		1.0		1.0		1.0		1.0		1.0	
	Maximum Non-Fibrous Mat.	---		---		---		---		---		---	
	Maximum Air Permeability	3.0		3.0		3.0		3.0		3.0		3.0	
Processes:	Singeing ?	X		X		X		X		X		X	
	Bleaching ?	X		X		X		X		X		X	
	Mercerizing ?	X		X		X		X		X		X	
	Dyeing ?	---		---		---		---		---		---	
	Printing ?	---		---		---		---		X Camouflage		X	
	Coating ?	---		---		---		---		---		---	
	Fusing ?	---		---		---		---		---		---	
	Dyes Used ?	---		---		Acid		Vat		Acid		Vat	
	Coating Used ?	---		---		---		---		---		---	
	Infrared Reflect ?	X		X		X		X		X		X	
	Odor Test ?	---		---		---		---		---		---	
	Water Repellent ? (Quarrell)	X		X		X		X		X		X	
	Hydrostatic Resist ?	X		X		X		X		X		X	
	Stiffness ?	---		---		---		---		---		---	
	Coating Adhesion ?	---		---		---		---		---		---	
	Coating Distribution ?	---		---		---		---		---		---	
	Blocking ?	---		---		---		---		---		---	
	Color Matching ?	X		X		X		X		X		X	
	Lanile Sulphur ?	X		X		X		X		X		A	
	Resistant to Insect	---		---		---		---		---		---	
	Repel ?	---		---		---		---		---		---	
	Leakage ?	---		---		---		---		---		---	
	Spray Rating ?	X		X		X		X		X		X	
	Colorfastness ?	---		---		---		---		---		---	
	pH Test ?	5.5-8.5		5.5-8.5		5.5-8.5		5.5-8.5		5.5-8.5		5.5-8.5	
	Mildew Resistance ?	---		---		---		---		---		---	
	Resin Finish ?	---		---		---		---		---		---	
	Ballistic Resistance ?	---		---		---		---		---		---	
	Antistatic ?	---		---		---		---		---		---	
	Heat Resistance ?	---		---		---		---		---		---	
	Flame Resistance ?	---		---		---		---		---		---	
	Durable Press	---		---		---		---		---		---	
	Shrink Resistant	---		---		---		---		---		---	
	Crease Resistant	---		---		---		---		---		---	
	Soil Release Treatment	---		---		---		---		---		---	
	Antistatic Finish	---		---		---		---		---		---	
	Maped	---		---		---		---		---		---	
FIBERS	Types of Fibers	Nylon Filling		Cotton Warp		Nylon Filling		Cotton Warp		Nylon Filling		Cotton Warp	
	S in Yarn	---		---		---		---		---		---	
	S Tolerance	---		---		---		---		---		---	
	Staple Length	---		---		---		---		---		---	
	Denier	---		---		---		---		---		---	
	Tenacity	---		---		---		---		---		---	
	Cross Section	---		---		---		---		---		---	
	Luster	---		---		---		---		---		---	
	Type Wool	---		---		---		---		---		---	
	Grade Wool	---		---		---		---		---		---	
	Treatments	---		---		---		---		---		---	
	Type Aramid	---		---		---		---		---		---	
	Carbonization Temp.	---		---		---		---		---		---	
	Treatments	---		---		---		---		---		---	
YARNS	Cotton Count	---		60		---		60		---		60	
	Ply	---		2		---		2		---		2	
	Type Yarn	---		Spun		---		Spun		---		Spun	
	Carded or Combed	Monofilament		Combed		Monofilament		Combed		Monofilament		Combed	
		---		---		---		---		---		---	
INTENDED USE		Parkas, Trousers		Parkas, Trousers		Parkas, Trousers		Parkas, Trousers		Parkas, Trousers		Parkas, Trousers	

FABRIC		MIL-C-43710 Class 1	MIL-C-43710 Class 1	MIL-C-43710 Class 2	MIL-C-43710 Class 2	P/P OES 23-730	P/P OES 23-730
		Twill 2 w, 1 dem, left twill or plain	Twill 2 w, 1 dem, left twill or plain	Twill 2 w, 1 dem, left twill or plain	Twill 2 w, 1 dem, left twill or plain	Poplin Plain	Poplin Plain
	Weight-Mil. Oz./Sq. Yd.	73	73	73	73	92	92
	Weight-Mil. Oz./Sq. Yd.	52	52	52	52	52	52
		(-15% tolerance for 100% Polyester)					
	Weight-Mil. Oz./Sq. Yd.	6.6	6.6	6.6	6.6	6.6	6.6
	Width	7	7	7	7	7	7
	Maximum Roll Length	50 Yards	50 Yards	50 Yards	50 Yards	40 Yards	40 Yards
	Maximum Break	✓	✓	✓	✓	✓	✓
	Maximum Tear	✓	✓	✓	✓	✓	✓
	Maximum Shrinkage	3.0	3.0	3.0	3.0	2.0	2.0
	Maximum Elongation	2.0	2.0	2.0	2.0	2.0	2.0
	Maximum Non-Fibrous Mat.						
	Maximum Air Permeability					0.5	0.5
Processes:	Singeing ?					1	1
	Blanching ?					1	1
	Mercurizing ?					1	1
	Dyeing ?					1	1
	Printing ?					(Basic Band) 1	(Basic Band) 1
	Coating ?						
	Finishing ?						
	Dyes Used ?						
	Coating Used ?						
	Infrared Reflect ?						
	Other Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	1	1	1	1	1	1
	Label Suitability	1	1	1	1	1	1
	Resistant to Insect						
	Resist ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?						
	Oil Test ?	1	1	1	1	1	1
	Widow Resistance ?	1.0-0.5	1.0-0.5	1.0-0.5	1.0-0.5	1	1
	Acidic Finish ?						
	Ballistic Resistance ?						
	Acidic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Shrink Resistance						
	Crease Resistance						
	Soil Release Treatment						
	Antistatic Finish						
	Resist						
FIBERS	Types of Fibers	Poly	Cotton or Rayon	Poly	Cotton	Cotton	Nylon
	5 in Yarn	47 to 100	47 to 100	47 to 60	47 to 60	30.0	70.0
	5 Tolerance	47 to 100	47 to 100	47 to 60	47 to 60	30.0	70.0
	Stable Length					✓	✓
	Diameter					1 1/2"	1 1/2"
	Tenacity					2.25-2.5	2.25-2.5
	Cross-Section					High	High
	Luster					Round	Round
	Type Weave					Seamless	Seamless
	Grade used						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
YARNS	Cotton Count	✓	✓	✓	✓	✓	✓
	Ply	✓	✓	✓	✓	✓	✓
	Type Yarn	✓	✓	✓	✓	✓	✓
	Carded or Combed	✓	✓	✓	✓	✓	✓
INTENDED USE		Packaging	Packaging	Packaging	Packaging	Light Desert	Light Desert
						Clothing	Clothing

		MIL-C-43892	MIL-C-43892	MIL-C-43843	MIL-C-43843
FABRIC	Generic Name	Twill	Twill	Plain Weave	Plain Weave
	Wave	2/1 Right Twill	2/1 Right Twill	Plain	Plain
	Warp Ends/Inch	94	94	102	102
	Filling Ends/Inch	46	46	56	56
	Weight-Min. Oz./Sq. Yd.	4.0	4.8	4.6	4.6
	-Max. Oz./Sq. Yd.	5.3	5.3	---	---
	Width	?	?	?	?
	Minimum Roll Length	50 Yards	50 Yards	40 Yards	40 Yards
	Minimum Break	W 155	W 155	125	125
	F 65	F 65	F 65	90	90
	Minimum Tear	W	W		
	F	F	F		
	Maximum Shrinkage	W 2.0	W 2.0	2.0	2.0
	F 2.0	F 2.0	F 2.0	2.0	2.0
	Maximum Elongation	W 2.0	W 2.0	2.0	2.0
	F 2.0	F 2.0	F 2.0	2.0	2.0
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability	75.0	75.0		
Processes:	Singeing ?				
	bleaching ?			X	X
	Mercurizing ?			X	X
	Dyeing?	X	X	X	X
	Printing ?				
	Coating ?				
	Fusing?				
	Dyes Used ?	Various	Various		
	Coating Used ?				
	Infrared Reflect?				
	Odor Test?				
	Water Repellent	X	X		
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur?	X	X	X	X
	Resistant to Insect				
	Repel ?				
	Leakage ?				
	Spray Rating ?	X	X		
	Colorfastness ?	X	X	X	X
	pH Test ?	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press			X	X
	Shrink Resistant				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Hopped				
FIBERS	Types of Fibers	Nylon	Cotton	Poly	Cotton
	% in Yarn	50	50	65	rest
	% Tolerance	+5	+5	+3	
	Staple Length	1 1/2"	---		
	Denier	2.25	---		
	Tenacity				
	Cross-Section	Round	---		
	Luster				
	Type Wool				
	Grade Wool				
	Treatments				
	Type Woad				
	Carbonization Temp.				
	Treatments				
YARNS	Cotton Count	W		# 27	# 27
	F			# 22.5	# 22.5
	Ply	W 1	1	1	1
	F 1	1	1	1	1
	Type Yarn	J			
	F				
	Carded or Combed	W ---	Carded	---	Combed
	F ---	---	Carded	---	Combed
INTENDED USE		Chemical Protective Overgarment	Chemical Protective Overgarment	Neckties (in Women's Poly/Cotton Shirt)	Neckties (in Women's Poly/Cotton Shirt)

		HTL-C-10176	HTL-C-10176	HTL-C-10176	HTL-C-10176
		Type 1/Class 1	Type 1/Class 1	Type 1/Class 1	Type 1/Class 1
FABRIC	Tenacity Name	Gabardine	Gabardine	Gabardine	Gabardine
	2/1 Right Twist	90	112	120	90
	Jump Ends/Inch	40	10	10	12
	Filling Ends/Inch	40	10	10	12
	Wt. Min. 10. 10. 10. 10.	7.1	7.1	10.1	8.4
	Max. 10. 10. 10. 10.	---	---	---	---
	Width	Min. 60"	Min. 60"	Min. 60"	Min. 60"
	Minimum Roll Length	50 Yards	50 Yards	50 Yards	50 Yards
	Minimum Break	42	110	120	130
	Minimum Tear	4	15	15	15
	Maximum Shrinkage	4.0	6.0	4.0	5.0
	Maximum Elongation	1.0	1.0	2.0	1.0
Processes:	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability				
	Shirring ?				
	Bleaching ?				
	Wetproofing ?				
	Starch Overlay ?				
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?	Various	Various	Various	Various
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Bleaching ?				
	Color Matching ?				
	Labile Sulphur ?				
	Resistant to Insect				
	Repeat ?				
	Leakage ?				
	Spray Misting ?				
	Colorfastness ?				
	Oil Test ?	1.5-0.1	1.5-0.1	1.5-0.1	1.5-0.1
	Alkali Resistance ?				
	Acid Resistance ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Shrinkage Resist				
	Flame Resistance ?				
	Shrinkage Resist				
	Shrinkage Resist				
	Shrinkage Resist				
	Crease Resist				
	Soil Release Treatment				
	Antistatic Finish				
	Washed				
FIBERS	Types of Fibers	Wool	Wool	Wool	Wool
	5 in Yarn	Min. 95	Min. 95	Min. 95	Min. 95
	5 Tolerance	Min. 95	Min. 95	Min. 95	Min. 95
	Staple Length				
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool	Fleece or Polled Fleece or Polled	Fleece or Polled Fleece or Polled	Fleece or Polled Fleece or Polled	Fleece or Polled Fleece or Polled
	Grade Wool	62's	64's	62's	64's
	Treatments	Wetproofing	Wetproofing	Wetproofing	Wetproofing
	Type Aramid				
	Concentration Temp.				
	Treatments				
YARNS	Cotton Count	4	4	4	4
	Ply	2	2	2	2
	Type Yarn	Sewn	Sewn	Sewn	Sewn
	Carried or Carried	Carried	Carried	Carried	Carried
		Carried	Carried	Carried	Carried
INTENDED USE		Clothing	Clothing	Clothing	Clothing

		MIL-C-10176	MIL-C-10176	MIL-C-10176	MIL-C-10176
		Type 11/Class 1	Type 12/Class 1	Type 11/Class 2	Type 12/Class 2
<b>FABRIC</b>	Generic Name	Gabardine	Gabardine	Gabardine	Gabardine
	Warp	2/1 Right Twist	2/1 Right Twist	2/2 Right Twist	2/2 Right Twist
	Warp Ends/Inch	34	34	34	34
	Filling Ends/Inch	48	48	56	56
	Weight-Min. 32./Sq. Yd.	5.5	5.5	5.1	5.1
	Max. 32./Sq. Yd.	---	---	---	---
	Width	Min. 60"	Min. 60"	Min. 60"	Min. 60"
	Minimum Roll Length	50 Yards	50 Yards	50 Yards	50 Yards
	Minimum Break	190	190	160	150
	Minimum Tear	110	110	70	70
	Maximum Shrinkage	1.0	1.0	1.0	1.0
	Maximum Elongation	2.5	2.5	2.0	2.0
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability				
	Stapling ?				
	Bleaching ?				
	Reprocessing ?				
	Stock Dyeing ?	1	1	1	1
	Printing ?				
	Coating ?				
	Fusing ?				
<b>Processes:</b>	Dyes Used *	Various	Various	Various	Various
	Coatings Used ?				
	Infrared Reflect ?				
	Other Test ?				
	Water Repellent				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	1	1	1	1
	Latex Solvent ?				
	Resistant to Impact				
	Reel ?				
	Leakage ?				
	Spray Coating ?				
	Colorfastness ?	1	1	1	1
	pH Test ?	5.5-8.5	5.5-8.5	5.5-8.5	5.5-8.5
	Mildew Resistance ?				
	Radio Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Shrink Press				
	Shrink Resistant				
	Flame Resistant				
	Shrink Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Repeel				
<b>FIBERS</b>	Types of Fibers	Poly	Wool	Poly	Wool
	5 in Yarn	Min. 55	Min. 40	Min. 55	Min. 40
	5 Tolerance	±6	Min. 40	±6	Min. 40
	Staple Length				
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool	Fleece or Pulled		Fleece or Pulled	
	Grass Wool	62's		64's	
<b>YARNS</b>	Treatments	Wetproofing		Wetproofing	
	Type Aramid				
	Carbonization Temp.				
	Treatments				
	Cotton Count				
	Ply	2	2	2	2
	Type Yarn	Sown	Sown	Sown	Sown
	Combed or Combed	Combed	Combed	Combed	Combed
		Combed	Combed	Combed	Combed
<b>INTENDED USE</b>		Clothing	Clothing	Clothing	Clothing



		NIL-C-10176 Type II/Class I	NIL-C-10176 Type II/Class I	NIL-C-10176 Type II/Class I	NIL-C-10176 Type II/Class I
FABRIC	Generic Name	Gabardine	Gabardine	Gabardine	Gabardine
	Wave	2 1/2 Right Tuill	2 1/2 Right Tuill	2 1/2 Right Tuill	2 1/2 Right Tuill
	Jump Ends/Inch	90	90	108	108
	Filling Ends/Inch	53	53	58	58
	Weight-Min. Oz./Sq. Yd.	7.2	7.2	6.3	6.3
	Max. Oz./Sq. Yd.	---	---	---	---
	Width	50" Min.	50" Min.	50" Min.	50" Min.
	Minimum Roll Length	50 Yards	50 Yards	50 Yards	50 Yards
	Minimum Break	120	120	140	140
		70	70	72	72
	Minimum Tear	M	M	M	M
		F	F	F	F
	Max. Shrinkage	3.0	3.0	3.0	3.0
		1.0	1.0	2.0	2.0
	Maximum Elongation	M	M	M	M
		F	F	F	F
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability				
Processes:	Singeing ?				
	Bleaching ?				
	Mercerizing ?				
	Stock Dyeing ?	X	X	X	X
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?	Various	Various	Various	Various
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur ?				
	Resistant to Insect				
	Repeal ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?	X	X	X	X
	pH Test ?	5.5-8.5	5.5-8.5	5.5-8.5	5.5-8.5
	Widow Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Grease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Needed				
FIBERS	Types of Fibers	Poly	Wool	Poly	Wool
	% in Yarn	Min. 55	Min. 40	Min. 55	Min. 40
	% Tolerance	+5	Min. 40	+5	Min. 40
	Staple Length				
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool		Fleece or Pulled		Fleece or Pulled
	Grade Wool		64's		64's
	Treatments		Mothproofing		Mothproofing
	Type Aramid				
	Carbonization Temp.				
	Treatments				
YARNS	Cotton Count	M			
		F			
	Ply	M	2	2	2
		F	2	2	2
	Type Yarn	M	Spun	Spun	Spun
		F	Spun	Spun	Spun
	Carded or Combed	M			
		F	Combed	Combed	Combed
INTENDED USE		Clothing	Clothing	Clothing	Clothing

		MIL-C-11065	MIL-C-11065	MIL-C-29127 Class 1	MIL-C-29127 Class 1	MIL-C-29127 Class 2	MIL-C-29127 Class 2
		Flannel 2/2 Broken twill: 2 ends rt. 2 lft.	Flannel 2/2 Broken twill: 2 ends rt. 2 lft.	Twill 2 up 1 down right twill	Twill 2 up 1 down right twill	Twill 2 up 1 down right twill	Twill 2 up 1 down right twill
FABRIC	Generic Name						
	weave						
	Warp Ends/Inch	38	38	102	102	102	102
	Filling Ends/Inch	33	33	50	50	50	50
	Weight-Min. Oz./Sq. Yd.	10.3	10.3	6.8	6.8	6.8	6.8
	Max. 12./Sq. Yd.	---	---	---	---	---	---
	Width	min. 60"	min. 60"	?	?	?	?
	Minimum Roll Length	50 Yards	50 Yards	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Break	50	50	170	170	170	170
		40	40	85	85	85	85
	Minimum Tear			7.0	7.0	7.0	7.0
				5.0	5.0	5.0	5.0
	Maximum Shrinkage			2.0	2.0	2.0	2.0
				2.0	2.0	2.0	2.0
	Maximum Elongation						
				6.0	6.0	6.0	6.0
	Maximum Non-Fibrous Mat.						
	Maximum Air Permeability						
Processes:	Singeing ?						
	Bleaching ?						
	Mercerizing ?						
	Dyeing ?	Stock	Stock				
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?	Various	Various				
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?						
	Labile Sulphur ?						
	Resistant to Insect						
	Revel ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?						
	pH Test ?	4.0-8.0	4.0-8.0	5.0-8.5	5.0-8.5	5.0-8.5	5.0-8.5
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Yarned						
FIBERS	Types of Fibers	Wool	Nylon	Poly	Cotton	Poly	Cotton
	% in Yarn	Min. 80%	Max. 20%	50%	Rest	50%	Rest
	% Tolerance			+3%		+3%	
	Staple Length	Min. 90%	Max. 20%	1-172"		1-172"	
	Density			Max 2.5		Max 2.5	
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool						
	Grade Wool						
	Treatments	Moistproofing					
	Typeramid						
	Carbonization Temp.						
	Treatments						
YARNS	Cotton Count						
	Ply	1	1	2	2	2	2
		1	1	1	1	1	1
	Type Yarn						
	Carded or Combed	Carded	Carded	Combed	Combed	Combed	Combed
		Carded	Carded	Combed	Combed	Combed	Combed
INTENDED USE	Shirting	Shirting	Shirting	Uniform	Uniform	Uniform	Uniform
				Clothing	Clothing	Clothing	Clothing

FABRIC		MIL-C-29382		MIL-C-29383		MIL-C-43675		MIL-C-43675		MIL-C-43796	MIL-C-43796
		Type I		Type I		Type I		Type I		Type I	Type I
	Generic Name	Applic	Applic	Interlining	Interlining	Interlining	Interlining	Interlining	Interlining	Interlining	Interlining
	Warp	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain
	Warp Ends/Inch	110	110	50	---	---	---	---	---	---	---
	Filling Ends/Inch	50	50	---	---	---	---	---	---	---	---
	Weight Min. 30./Sq. Yd.	5.5	5.5	7.0	7.0	---	---	---	---	---	---
	Max. 30./Sq. Yd.	6.0	6.0	---	---	---	---	---	---	---	---
	Width	40 Yards	40 Yards	20 Yards	20 Yards	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Ball Length	185	185	---	---	---	---	---	---	---	---
	Minimum Break	70	70	---	---	---	---	---	---	---	---
	Minimum Tear	5.0	5.0	---	---	---	---	---	---	---	---
	Minimum Shrinkage	2.0	2.0	4.0	---	---	---	---	---	---	---
	Maximum Elongation	2.0	2.0	---	---	---	---	---	---	---	---
	Maximum Abr. Abrasion Res.	1.0	1.0	---	---	---	---	---	---	---	---
	Maximum Air Permeability	4.0	4.0	---	---	---	---	---	---	---	---
Processes:	Cleaning ?										
	Starching ?										
	Harvesting ?										
	Dyeing ?										
	Pressing ?										
	Coating ?										
	Finishing ?										
	Dyes Used ?	Various	Various	---	---	---	---	---	---	---	---
	Coating Used ?										
	Infrared Reflect ?										
	Other Test ?										
	Water Repellent ?										
	Hydrostatic Resist ?										
	Stiffness ?			0.082-0.008	0.12-0.20						
	Coating Adhesion ?										
	Coating Distribution ?										
	Stitching ?										
	Color Matching ?										
	Labile Solvent ?										
	Resistant to Insect										
	Resist ?										
	Leakage ?										
	Colorfastness ?										
	ph Test ?	5.5-6.5	5.5-6.5								
	Widen Resistance ?										
	Resin Finish ?										
	Ballistic Resistance ?										
	Antistatic ?										
	Heat Resistance ?										
	Flame Resistance ?										
	Durable Press Treating										
	Shrink Resistant										
	Crease Resistant										
	Soil Release Treatment										
	Antistatic Finish										
	Washed										
FIBERS	Types of Fibers	Poly	Cotton	Cotton	Rayon	Poly	Cotton				
	St in Yarn	55	rest			55					
	St Tolerance	2%				2%					
	Stable Length					1-172"					
	Denier					Max 2.5					
	Tenacity										
	Crash-Section										
	Luster										
	Type Wool										
	Grade Wool										
	Finestments										
	Type Wool										
	Carbonization Temp.										
	Treatments										
YARN	Section Count	U				35	35				
	F					18	18				
	ply	U	2	2	1	---	---				
	C		1	1	---	---	---				
	Type Yarn	U	Spun	Spun	---	2	1				
	F		Spun	Spun							
	Carded or Combed	U		Combed							
	F			Combed							
INTENDED USE											
		All Weather	All Weather	Cap Interlining	Cap Interlining						
		Coats and Windbreakers	Coats and Windbreakers								

FABRIC	Generic Name	Twill (2 Up-1 Down Left Twill)	MIL-C-43791 Type II/Class 1	Twill (2 Up-1 Down Left Twill)	MIL-C-43791 Type II/Class 1	Twill (2 Up-1 Down Left Twill)	MIL-C-43791 Type II/Class 2	Twill (2 Up-1 Down Left Twill)	MIL-C-43791 Type II/Class 2	Twill (2 Up-1 Down Left Twill)	MIL-C-43791 Type II/Class 3	Twill (2 Up-1 Down Left Twill)	MIL-C-43791 Type II/Class 3
	Yarn Ends/Inch	85		85		85		85		85		85	
	Filling Ends/Inch	45		45		45		45		45		45	
	Weight-Min. Oz./Sq. Yd.	6.8		6.8		6.8		6.8		6.8		6.8	
	Max. Oz./Sq. Yd.	7.8		7.8		7.8		7.8		7.8		7.8	
	Width	?		?		?		?		?		?	
	Minimum Roll Length	40 Yards		40 Yards		40 Yards		40 Yards		40 Yards		40 Yards	
	Minimum Break	145		145		145		145		145		145	
		90		90		90		90		90		90	
	Minimum Tear	5.0		5.0		5.0		5.0		5.0		5.0	
		5.0		5.0		5.0		5.0		5.0		5.0	
	Maximum Shrinkage	2.0		2.0		2.5		2.5		2.5		2.5	
		1.5		1.5		1.5		1.5		1.5		1.5	
	Maximum Elongation												
	Maximum Non-Fibrous Mat.	2.0		2.0		2.0		2.0		2.0		2.0	
	Maximum Air Permeability												
Processes:	Singeing ?												
	Bleaching ?												
	Mercerizing ?	X		X		X		X		X		X	
	Dyeing ?	X		X		X		X		X		X	
	Printing ?												
	Coating ?												
	Fusing ?												
	Dyes Used ?	(Vat and Dispersed)		(Vat and Dispersed)		(Vat and Dispersed)		(Vat and Dispersed)		(Vat and Dispersed)		(Vat and Dispersed)	
	Coating Used ?												
	Infrared Reflect ?												
	Odor Test ?												
	Water Repellent ?												
	Hydrostatic Resist ?												
	Stiffness ?												
	Coating Adhesion ?												
	Coating Distribution ?												
	Blocking ?												
	Color Matching ?	X		X		X		X		X		X	
	Labile Sulmer ?	X		X		X		X		X		X	
	Resistant to Insect												
	Repel ?												
	Leakage ?												
	Spray Rating ?	X		X		X		X		X		X	
	Colorfastness ?	X		X		X		X		X		X	
	pH Test ?	5.0 - 8.5		5.0 - 8.5		5.0 - 8.5		5.0 - 8.5		5.0 - 8.5		5.0 - 8.5	
	Mildew Resistance ?												
	Resin Finish ?												
	Ballistic Resistance ?												
	Antistatic ?												
	Heat Resistance ?												
	Flame Resistance ?												
	Durable Press Treatment	X		X		X		X		X		X	
	Shrink Resistant												
	Croase Resistant												
	Soil Release Treatment												
	Antistatic Finish												
	Washed												
FIBERS	Types of Fibers	Poly		Cotton		Poly		Cotton		Poly		Cotton	
	S in Yarn												
	S Tolerance												
	Stable Length	1-1/2"				1-1/2"				1-1/2"			
	Denier	Max 2.5				Max 2.5				Max 2.5			
	Tenacity												
	Cross-Section												
	Luster												
	Type Wool												
	Grade Wool												
	Treatments												
	Type Aramid												
	Carbonization Temp.												
	Treatments												
YARNS	Cotton Count	M		14-15.5		14-15.5		14-15.5		14-15.5		14-15.5	
		F		12.5-14		12.5-14		12.5-14		12.5-14		12.5-14	
	Ply	M		1		1		1		1		1	
		F		1		1		1		1		1	
	Type Yarn	M											
		F											
	Carded or Combed	M		Either		Either		Either		Either		Either	
		F		Either		Either		Either		Either		Either	

# INTENDED USE

FABRIC	General Remarks	HTL-C-23490		HTL-C-23490		HTL-C-23490		HTL-C-23490		HTL-C-23490	
		denier	Filling	denier	Filling	denier	Filling	denier	Filling	denier	Filling
<p>General Remarks: 8 harness warp face stain, 5 counter is related to stable filling yarn. 1 up, 3 down, right twist for 2 ends and 3 down, 1 up reversal for 2 ends is related to continuous filling arms. Two picks come, fillament and 2 picks stable.</p>											
Warp Ends/Inch	105	---	---	---	---	---	---	---	---	---	---
Filling Ends/Inch	---	continuous 65	65	65	65	65	65	65	65	65	65
Warp/Inch	4 to 6	4 to 6	?	?	?	?	?	?	?	?	?
Weight-Hil. 32./Sq. Yd.	9.3										
Weight-Hil. 60./Sq. Yd.	9.3										
Width	56"										
Minimum Yell Length											
Minimum Break	150	150	150	150	150	150	150	150	150	150	150
Minimum Tear	20	20	20	20	20	20	20	20	20	20	20
Maximum Shrinkage											
Maximum Elongation											
<p>Various Non-Fibrous Mat.</p> <p>Maximum Air Permeability</p>											
<p>Processes:</p> <p>Singeing ?</p> <p>Bleaching ?</p> <p>Washing ?</p> <p>Dyeing ?</p> <p>Printing ?</p> <p>Coating ?</p> <p>Finishing ?</p> <p>Dyes Used ?</p> <p>Coating Used ?</p> <p>Infrared Reflect ?</p> <p>Odor Test ?</p> <p>Water Repellent ?</p> <p>Hydrostatic Resist ?</p> <p>Stiffness ?</p> <p>Coating Adhesion ?</p> <p>Coating Distribution ?</p> <p>Bleaching ?</p> <p>Color Matching ?</p> <p>Labile Solvent ?</p> <p>Resistant to Insect</p> <p>Repeel ?</p> <p>Leakage ?</p> <p>Spray Rating ?</p> <p>Colorfastness ?</p> <p>pH Test ?</p> <p>Widow Resistance ?</p> <p>Repeel Finish ?</p> <p>Ballistic Resistance ?</p> <p>Antistatic ?</p> <p>Heat Resistance ?</p> <p>Flame Resistance ?</p> <p>Denier Press</p> <p>Denier Resistant</p> <p>Crease Resistant</p> <p>Soil Release Treatment</p> <p>Antistatic Finish</p> <p>Woods</p>											
<p>2 Passes 2 Passes 2 Passes 2 Passes 2 Passes 2 Passes</p> <p>on Filling Side on Filling Side on Filling Side on Filling Side on Filling Side on Filling Side</p>											
<p>FIBERS</p> <p>Types of Fibers Meta-aramide Meta-aramide para-aramide and Meta-aramide Novoloid</p> <p>8 in yarn 8 in yarn 8 in yarn 8 in yarn 8 in yarn 8 in yarn</p> <p>Stable Length Continuous Continuous para-aramide intermediate modulus Meta-aramide Novoloid</p> <p>Denier 200/100 200/100 50 50</p> <p>Tenacity</p> <p>Press-Section</p> <p>Luster</p> <p>Type Wool</p> <p>Grade Wool</p> <p>Treatments</p> <p>Type Aramid</p> <p>Carbonization Temp.</p> <p>Treatments</p>											
<p>VALUES</p> <p>Latent Count M</p> <p>Ply M</p> <p>Type Yarn M</p> <p>Carved or Combed M</p>											
<p>INTENDED USE</p> <p>Non-Wetting Non-Wetting Non-Wetting Non-Wetting Non-Wetting Non-Wetting</p> <p>Flying Clothing Flying Clothing Flying Clothing Flying Clothing Flying Clothing Flying Clothing</p>											

		NIL-C-42252 Type 1/Class 1	NIL-C-42252 Type 1/Class 2	NIL-C-42252 Type 1/Class 3	NIL-C-42252 Type 1/Class 4	NIL-C-42252 Type 1/Class 5
FABRIC	Generic Name	Broadcloth	Broadcloth	Broadcloth	Broadcloth	Broadcloth
	Acres	2/1 right twill	2/1 right twill	2/1 right twill	2/1 right twill	2/1 right twill
	Acres Ends/Inch	54	56	60	54	58
	Filling Ends/Inch	58	58	58	54	54
	Weight-Min. Oz./Sq. Yd.	9.0	10.0	10.3	10.7	14.1
	Max. Oz./Sq. Yd.	9.8	10.7	10.9	11.3	15.4
	Width (Min.)	56"	54"	56"	54"	56"
	Minimum Roll Length	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Break	48	50	40	48	48
	Minimum Tear	42	48	38	48	40
	Maximum Shrinkage	4	5.0	3.5	3.5	4.0
	Maximum Elongation	4	4.0	3.5	2.5	3.0
	Maximum non-fluorous Mod.					
	Maximum Air Permeability					
Processes:	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
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	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
	Shirring?					
FIBERS	Types of Fibers	wool	wool	wool	wool	wool
	1 in Yarn	Wt. 95S	Wt. 95S	Wt. 95S	Wt. 95S	Wt. 95S
	2 in Yarn	Wt. 95S	Wt. 95S	Wt. 95S	Wt. 95S	Wt. 95S
	Staple Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
FABRIC	Cotton Count	4	4	4	4	4
	Pl	1	1	1	1	1
	Yarn	1	1	1	1	1
	Type Yarn	Sewn	Sewn	Sewn	Sewn	Sewn
	Carded or Combed	Carded	Carded	Carded	Carded	Carded
INTENDED USE		Clothing	Clothing	Clothing	Clothing	Clothing

		MIL-C-82252	MIL-C-82252	MIL-C-82252	MIL-C-82252	MIL-C-82252	MIL-C-82252
		Type II/Class 1	Type II/Class 1	Type II/Class 2	Type II/Class 2	Type II/Class 3	Type II/Class 3
<b>FABRIC</b>	Generic Name	Broadcloth	Broadcloth	Broadcloth	Broadcloth	Broadcloth	Broadcloth
	Wave	2/1 right twill	2/1 right twill	2/1 right twill	2/1 right twill	2/1 right twill	2/1 right twill
	Warp Ends/Inch	56	56	54	54	51	51
	Filling Ends/Inch	55	55	54	54	51	51
	Weight-Min. Oz./Sq. Yd.	10.0	10.0	10.7	10.7	10.7	10.7
	-Max. Oz./Sq. Yd.	10.7	10.7	11.3	11.3	11.3	11.3
	Width	Min. 54"	Min. 54"	Min. 54"	Min. 54"	Min. 54"	Min. 54"
	Minimum Roll Length	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Break	50	50	55	55	55	55
	Minimum Tear	45	45	45	45	45	45
	Maximum Shrinkage	2.0	2.0	3.5	3.5	3.5	3.5
	Maximum Elongation	1.5	1.5	2.5	2.5	2.5	2.5
<b>Processes:</b>	Maximum Non-Fibrous Mat.						
	Maximum Air Permeability						
	Singeing ?						
	Bleaching ?						
	Mercerizing ?						
	Stock Dyeing?	X	X	X	X	X	X
	Printing ?						
	Coating ?						
	Fusing?						
	Dyes Used ?						
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	X	X	X	X	X	X
	Labile Sulphur?						
	Resistant to Insect						
	Resist ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?	X	X	X	X	X	X
	pH Test ?	4.0-8.0	4.0-8.0	4.0-8.0	4.0-8.0	4.0-8.0	4.0-8.0
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Grease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Napped						
<b>FIBERS</b>	Types of Fibers	Wool	(Syn?)	Wool	(Syn?)	Wool	(Syn?)
	% in Yarn	Min. 83%	Max. 17%	Min. 83%	Max. 17%	Min. 83%	Max. 17%
	% Tolerance	Min. 83%	Max. 17%	Min. 83%	Max. 17%	Min. 83%	Max. 17%
	Staple Length						
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled
	Grade Wool	60's	60's	60's	60's	60's	60's
	Treatments	Mothproofing	Mothproofing	Mothproofing	Mothproofing	Mothproofing	Mothproofing
	Type Aramid						
	Carbonization Temp.						
	Treatments						
<b>YARNS</b>	Cotton Count	M					
	Ply	F					
	Type Yarn	M	1	1	1	1	1
	Carded or Combed	F	1	1	1	1	1
		M	Spun	Spun	Spun	Spun	Spun
		F	Spun	Spun	Spun	Spun	Spun
		M	Carded	Carded	Carded	Carded	Carded
		F	Carded	Carded	Carded	Carded	Carded

# INTENDED USE

TIME



		CCC-C-476 Type I/Class A	CCC-C-476 Type I/Class B	CCC-C-476 Type II	CCC-C-476 Type II
<b>FABRIC</b>	Generic Name	Bunting	Bunting	Bunting	Bunting
	Wave	Plain (Selvage as Oxford)	Plain (Selvage as Oxford)	Plain (Selvage as Oxford)	Plain (Selvage as Oxford)
	400 Ends/Inch	108	62	12	12
	Filling Ends/Inch	76	50	10	10
	Weight-Min. Oz./Sq. Yd.	2.7	1.6	4.8	4.8
	Max. Oz./Sq. Yd.	?	?	?	?
	Width	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Roll Length	125	225	115	115
	Minimum Break	155	152	100	150
	Minimum Tear	M	M	M	M
	Maximum Shrinkage	M	M	M	M
	Maximum Elongation	M	M	M	M
	Maximum Non-Fibrous Mat				
	Maximum Air Permeability				
<b>Processes:</b>	Singeing ?				
	Bleaching ?				
	Mercerizing ?				
	Dyeing?				Stock Dye
	Printing ?				
	Coating ?				
	Fusing?				
	Dyes Used ?				
	Coating Used ?				
	Infrared Reflect?				
	Odor Test?				
	Water Repellent				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur?				
	Resistant to Insect				
	Repel ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?	X	X	X	X
	pH Test ?	5.0-6.5	5.0-6.5	4.0-6.0	4.0-6.0
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Napped				
<b>FIBERS</b>	Types of Fibers	Nylon	Nylon	Nylon	Wool
	S in Yarn			75	25
	% Tolerance			+5	+5
	Staple Length	Continuous	Continuous	Staple	
	Denier	70 Wavy or 140	200 or 210		
	Tenacity				
	Cross-Section				
	Luster	Bright	Bright	Bright	Fleece or pulled
	Type Wool				46's
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<b>YARNS</b>	Cotton Count	M			
	Ply	M	1	2	2
		F	2 or 1	2	2
	Type Yarn	M	(Continuous	Spun	Spun
		F	filament)	Spun	Spun
	Carded or Combed	M			Combed
		F			Combed
<b>INTENDED USE</b>		Flags	Flags	Flags	Flags

# MAN-MADE FABRICS

FABRIC		NIL-C-7020G Type I	NIL-C-7020G Type Ia	NIL-C-7020G Type II	NIL-C-7020G Type IIa	NIL-C-7020G Type III	NIL-C-7020G Type IIIa
		Rip Stop (Figure 1)	Rip Stop Reinf. Selv. (Figure 1)	Twill 2up/2down/twill	Twill 2up/2down/twill	Rip Stop (Figure 2)	Rip Stop Reinf. Selv. (Figure 2)
	Hard Ends/Inch	120	120	120	120	120	120
	Softening Ends/Inch	120	120	76	76	120	120
	Weight-Min. Oz./Sq. Yd.	1.1	1.1	1.6	1.6	1.6	1.6
	Weight-Max. Oz./Sq. Yd.	1.1	1.1	1.6	1.6	1.6	1.6
	Width	36.5±0.5	36.5±0.5	36.5±0.5	36.5±0.5	36.5±0.5	36.5±0.5
	Minimum Roll Length	100 yds.	100 yds.	100 yds.	100 yds.	100 yds.	100 yds.
	Minimum Break	42	42	50	50	50	50
	Minimum Tear	5±1	5±1	5	5	5	5
	Maximum Shrinkage	2%	2%	2%	2%	2%	2%
	Maximum Elongation	20	20	20	20	20	20
	Maximum Non-Fibrous Mat.	120	12	160	160	160	160
	Maximum Air Permeability	0.003	0.003	0.004	0.004	0.004	0.004
Processes:	Singleing ?						
	Bleaching ?						
	Mercerizing ?						
	Dyeing ?						
	Printing ?						
	Coating ?						
	Fusing ?						
	Uses Used ?						
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ? (Quarrel)						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?						
	Labile Solubility ?						
	Resistant to Insect						
	Repeel ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?	5 to 9	5 to 9	5 to 9	5 to 9	5 to 9	5 to 9
	pH Test ?						
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Light & Heat Resistance	3.5 yrs.	3.5 yrs.	3.5 yrs.	3.5 yrs.	3.5 yrs.	3.5 yrs.
	Flame Resistant						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Wadded						
FIBERS	Types of Fibers	Nylon	Nylon	Nylon	Nylon	Nylon	Nylon
	% in Yarn	100%	100%	100%	100%	100%	100%
	% Tolerance						
	Staple Length						
	Denier	High	High	High	High	High	High
	Capacity						
	Cross-Section	Bright	Bright	Bright	Bright	Bright	Bright
	Luster						
	Type Wool						
	Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
YARNS	Cotton Count						
	Ply						
	Type Yarn						
	Carded or Combed						
	Top						
DIMENSIONS	Width 2 1/16"		1/2		1/2		1/2
	Thickness (mm)		0.075		0.008		0.008
	Breaking Strength (min.)		56		56		56

INTENDED USE

Parachute or Base Cloth for Coated Fabrics

		MIL-C-7350E	MIL-C-7350E	MIL-C-7350E	MIL-C-7350E
		Type I/Class I	Type I/Class II	Type I/Class I	Type I/Class II
<u>FABRIC</u>	Weave	(See Figure 1)	(see Figure 1)	(see Figure 2)	(see Figure 2)
	4arp Ends/inch	70	70	52	52
	Filling Ends/inch	70	70	52	52
	Weight-Min. Oz./Sq. Yd.				
	-Max. Oz./Sq. Yd.	2.25	2.25	3.50	3.50
	Width	36.5±0.5	39.5±0.5	36.5±0.5	39.5±0.5
	Minimum Roll Length	100 yds	100 yds	100 yds	100 yds
	Minimum Break	W 90	90	125	125
		F 90	90	125	125
	Minimum Tear	W 10	10	30	30
		F 10	10	30	30
	Maximum Shrinkage	W			
		F			
	Maximum Elongation	W 25	25	25	25
		F 25	25	25	25
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability	150	150	200	200
	Maximum Thickness	0.0068"	0.0068"	0.0140"	0.0140"
<u>Processes:</u>	Singeing ?				
	Bleaching ?				
	Mergerizing ?				
	Dyeing ?				
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?				
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ? (Quarrel)				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?				
	Labile Sulphur ?				
	Resistant to Insect				
	Repel ?				
	Leakage ?				
	Soray Rating ?				
	Colorfastness ?	X	X	X	X
	pH Test ?	5 to 9	5 to 9	5 to 9	5 to 9
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Light & Heat Resistance	X	X	X	X
	Age Maximum	3.5 yrs.	3.5 yrs.	3.5 yrs.	3.5 yrs.
	Flame Resistant				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Napped				
<u>FIBERS</u>	Types of Fibers	Nylon	Nylon	Nylon	Nylon
	% in yarn	100%	100%	100%	100%
	% Tolerance				
	Staple Length				
	Denier				
	Tenacity	High	High	High	High
	Cross-Section				
	Luster	Bright	Bright	Bright	Bright
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<u>YARNS</u>	Cotton Count	W			
		F			
	Ply	W			
		F			
	Type Yarn	W			
		C			
	Carded or Combed	W			
		F			
	(Pl. Min.)	W 5	5	5	5
		F 5	5	5	5
<u>INTENDED USE</u>		Parachute	Parachute	Parachute	Parachute

		MIL-C-43908 Type I	MIL-C-43908 Type II	MIL-C-43673 Type I	MIL-C-43673 Type II	MIL-C-43673 Type III
<b>FABRIC</b>	Generic Name	Various	Various	Rip-Stop	Rip-Stop	Rip-Stop
	Weave	Plain	Plain	Plain	Plain	Plain
	Warp Ends/Inch	40	40			
	Filling Ends/Inch	40	40			
	Weight-Min. Oz./Sq. Yd.	2.0	2.0	1.6	1.6	1.6
	Max. Oz./Sq. Yd.	2.4	2.4			
	Width					
	Minimum Roll Length	50 Yards	50 Yards	50 Yards	50 Yards	50 Yards
	Minimum Break	M		50	50	50
		P		50	50	50
	Minimum Tear	M		.7	.7	.7
		P		9	9	9
	Maximum Shrinkage	M				
		P				
	Maximum Elongation	M				
		P				
	Maximum Non-Fibrous Mat.					
	Maximum Air Permeability					
<b>Processes:</b>	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?		X	X	X	X
	Printing ?		X		X	X
	Coating ?	X	X	X	X	X
	Fusing ?					
	Dyes Used ?	-Id	Acid	Acid	Acid	Acid
	Coating Used ?	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
	Infrared Reflect ?	X	X	X	X	X
	Odor Test ?	X	X	X	X	X
	Water Repellent ?	X	X	X	X	X
	Hydrostatic Resist ?	X	X	X	X	X
	Stiffness ?	X	X	X	X	X
	Coating Adhesion ?	X	X	X	X	X
	Coating Distribution ?	X	X	X	X	X
	Blocking ?			X	X	X
	Color Matching ?		X	X	X	X
	Labile Sulphur ?		X			
	Resistance to Insects					
	Repel ?					
	Leakage ?	X	X	X	X	X
	Spray Rating ?	X	X	X	X	X
	Colorfastness ?	X	X	X	X	X
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Wadded					
<b>FIBERS</b>	Types of Fibers	Nylon	Nylon	Nylon	Nylon	Nylon
	S in Yarn	100.0	100.0	100.0	100.0	100.0
	S Tolerance					
	Staple Length					
	Denier	230-220	200-220			
	Tenacity					
	Cross-Section					
	Luster	S.D. or Bright	S.D. or Bright			
	Type Wool					
	Grade Wool					
<b>YARNS</b>	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
	Cotton Count	M				
		P				
	Ply	M				
		P				
	Type Yarn	M				
		P				
	Carded or Combed	M				
		P				
<b>INTENDED USE</b>		Weather Gear	Weather Gear	Jungle Gear	Jungle Gear	Jungle Gear

		NIL-C-368 Class 1	NIL-C-368 Class 2	NIL-C-368 Class 3	NIL-C-508 Type I	NIL-C-508 Type II
<b>FABRIC</b>	Generic Name	Twill	Twill	Satin	Oxford	Oxford
	Weave	2/1 Right	2/1 Right	5 Harness	Plain	Plain
	Warp Ends/Inch	121	142	180	180	180
	Filling Ends/Inch	67	71	67	76	76
	Weight-Min. Oz./Sq. Yd.	3.7	4.2	4.5	2.9	2.9
	-Max. Oz./Sq. Yd.					
	Width	>41"	>41"	>41"	40 Yards	40 Yards
	Minimum Roll Length	50 Yards	50 Yards	50 Yards		
	Minimum Break	100	115	150	220	220
		50	55	55	135	135
	Minimum Tear					
	Maximum Shrinkage	6.0	6.0	6.0	2.0	2.0
	Maximum Elongation	3.0	3.0	3.0	2.0	2.0
	Maximum Non-Fibrous Mat.				1.0	1.0
	Maximum Air Permeability					
	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?	X	X	X	X	X
	Printing ?				X	X
	Coating ?					
<b>Processes:</b>	Fusing ?					
	Dyes Used ?	Direct	Direct	Direct	Acid/Disperse	Acid/Disperse
	Coat Used ?					
	Infrared Reflect ?				X	X
	Odor Test ?					
	Moist. Repellent ?				X	X
	Hyd. static Resist ?				X	X
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X	X	X	X	X
	Lanile Sulphur ?	X	X	X		
	Resistance to Insect					
	Repel ?					
	Leakage ?					
	Spray Rating ?				X	X
	Colorfastness ?	X	X	X	X	X
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?					
<b>FIBERS</b>	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Wapped					
	Types of Fibers	Rayon	Rayon	Rayon	Nylon	Nylon
	S in Yarn	100.0	100.0	100.0	100.0	100.0
	S Tolerance					
	Stable Length					
	Denier					
	Tenacity					
	Cross-Section					
	Luster				Bright	Bright
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<b>YARNS</b>	Cotton Count	M				
		F				
	Ply	M				
		F				
	Type Yarn	Multi-Filament	Multi-Filament	Multi-Filament	Multi-Filament	(STP1)
		Multi-Filament	Multi-Filament	Multi-Filament	Multi-Filament	(STP1)
	Carded or Combed	M				
<b>INTENDED USE</b>						
		Utility Use, Mats	Coats and Uniforms	Overcoats	Clothing and Equipment	Coating

		NIL-C-7219 Type I	NIL-C-7219 Type II	NIL-C-7219 Type III	NIL-C-44090 Type I	NIL-C-44090 Type II
<u>FABRIC</u>	Generic Name	Duck	Duck	Duck	Plain	Plain
	Weave	Plain	Plain	Plain		
	Warp Ends/Inch	90	78	60	30	34
	Filling Ends/Inch	38	38	15	30	33
	Weight-Min. Oz./Sq. Yd.				9.0	13.5
	Max. Oz./Sq. Yd.	9.5	8.75	7.25	8.5	14.5
	Width					
	Minimum Roll Length	40 Yards	40 Yards	40 Yards	80-120 Yards	80-120 Yards
	Minimum Break	W				
		F				
	Minimum Tear	W				
		F				
	Maximum Shrinkage	W	2.5	2		
		F	2	2		
	Maximum Elongation	W				
		F				
	Maximum Non-Fibrous Mat.					
	Maximum Air Permeability	5	5	8		
<u>Processes:</u>	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?					
	Printing ?					
	Coating ?					
	Fusing ?					
	Dyes Used ?					
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?	X	X	X	X	X
	Hydrostatic Resist	X	X	X		
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?	X	X	X		
	Color Matching ?	X	X	X		
	Labile Sulphur?					
	Resistant to Insect					
	Repeel ?					
	Leakage ?					
	Spray Rating ?	X	X	X	X	X
	Colorfastness ?	X	X	X		
	pH Test ?	X	X	X		
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?				X	X
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Wadded					
<u>FIBERS</u>	Types of Fibers	Nylon	Nylon	Nylon	Aramid	Aramid
	% in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Denier				1,000	1,500
	Tenacity	High	High	High	> 20 G/Den	> 20 G/Den
	Cross-Section					
	Luster	Bright	Bright	Bright		
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<u>YARNS</u>	Cotton Count	W				
		F				
	Ply		Singles	Singles	Singles	Singles
		F	Singles	Singles	Singles	Singles
	Type Yarn		Flat Filament	Flat Filament	Flat Filament	Flat Filament
		F	Flat Filament	Flat Filament	Flat Filament	Flat Filament
	Carded or Combed					
		F				
<u>INTENDED USE</u>		Parachute Packs	Parachute Packs	Parachute Packs	Fragmentation and Bullet Protection	Fragmentation and Bullet Protection

		MIL-C-83429 Type I	MIL-C-83429 Type II	MIL-C-19759	MIL-C-43251	MIL-C-43251
<b>FABRIC</b>	Generic Name	Basket(2x2)	Plain	Twill		Pile 12/32
	Weave					
	Warp Ends/Inch	90	70			
	Filling Ends/Inch	88	47			
	Weight-Min. Oz./Sq. Yd.	5.0	4.3	7.5		
	-Max. Oz./Sq. Yd.			8.5		
	Width	45"	45"			
	Minimum Roll Length	40 Yards	40 Yards	50 Yards		10 Yards
	Minimum Break	W 100	180	225		
		F 100	100	210		
	Minimum Tear	W 15	12			
		F 15	8			
	Maximum Shrinkage	W 4	4			
		F 1.5	1.5			
	Maximum Elongation	W				
		F				
	Maximum Non-Fibrous Mat.					
	Maximum Air Permeability					
<b>Processes:</b>	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?	Nylon Extrusion	Nylon Extrusion			X
	Printing ?					
	Coating ?			X		
	Fusing ?					
	Dyes Used ?					Basic
	Coatings Used ?			Chloroprene Rubber		
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?			X		
	Stiffness ?			X		
	Coating Adhesion ?			X		
	Coating Distribution ?			X		
	Blocking ?			X		
	Color Matching ?	X	X		X	
	Labile Sulfur ?					
	Resistant to Insect Repel ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?	X	X		X	
	pH Test ?	X	X		X	
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?	X	X			
	Heat Resistance ?			X		
	Flame Resistance ?	X	X			
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Napped					
<b>FIBERS</b>	Types of Fibers	Aromatic Nylon	Aromatic Nylon	Nylon	Pile-Acrylic	Backing -Cotton, Poly or Acrylic 100.0
	% in Yarn	100.0	100.0	100.0	100.0	
	% Tolerance					
	Staple Length	1 1/2"-2"	1 1/2"-2"			
	Denier	1.5 Den/Filament	1.5 Den/Filament			
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<b>YARNS</b>	Cotton Count	W 24/1	37/2			10/1
		F 24/1	37/2			10/1
	Ply	W Singles	2-Ply			
		F Singles	2-Ply			
	Type Yarn	W Flat Filament	Flat Filament			Spun
		F Flat Filament	Flat Filament			
	Carded or Combed	W F				
<b>INTENDED USE</b>		Flying Clothes	Flying Clothes	Cold and Wet Weather Clothing		Linens

		MIL-C-43594	MIL-C-29147	MIL-C-29147	MIL-C-43842	MIL-C-97052
<u>FABRIC</u>	Generic Name	Plain	Plain		Oxford	Twill
	weave				Plain	2/1 Right
	Warp Ends/Inch	62		50	124	67
	Filling Ends/Inch	40		40	46	58
	Weight-Min. Oz./Sq. Yd.	3:4		5.7	5.6	5.5
	-Max. Oz./Sq. Yd.				6	6.5
	Width					60"
	Minimum Roll Length	40 Yds.		40 Yds.	40 Yds.	40 Yds.
	Minimum Break	W 200		120	100	200
		F 125		90	120	150
	Minimum Tear	W		7.5		12
		F		6.5		12
	Maximum Shrinkage	W 2.0		2.5	2.0	2.0
		F 2.0		2.5	2.0	2.0
	Maximum Elongation	W 2.0		2.5	2.0	2.0
		F 2.0		2.5	2.0	2.0
	Maximum Non-Fibrous Mat.	2.0		8.5	1.0	3.0
	Maximum Air Permeability				6.0	
<u>Processes:</u>	Singeing ?					
	Bleaching ?					
	Menderizing ?					
	Dyeing ?			X		
	Printing ?					
	Coating ?					
	Fusing ?					
	Dyes Used ?					
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?					
	Stiffness ?	X				
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?			X	X	X
	Labile Sulphur?			X		
	Resistant to Insect					
	Repel ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?			X	X	X
	pH Test ?	X		X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?				X	
	Heat Resistance ?				X	
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Wadded					
<u>FIBERS</u>	Types of Fibers	Polyester	Polyester	Rayon	Nylon	Polyester
	% in Yarn	100.0	65.0	35.0	100.0	100.0
	% Tolerance		±5.0	±5.0		
	Staple Length				1 1/2"-2"	
	Denier				2/Filament	150
	Tenacity					Regular
	Cross-Section					Octalobal
	Luster					Semi-Dull
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<u>YARNS</u>	Cotton Count	W			22/1	
		F			22/1	
	Ply	W		2-Ply	Singles	
		F		2-Ply or Singles	Singles	
	Type Yarn	W Flat Mult. Fila.	Spun	Spun	Spun	Tex. Fila.
		F Flat Mult. Fila.	Spun	Spun	Spun	Tex. Fila.
<u>INTENDED USE</u>						
		Interlining		Shirts	Clothing, Seat Covers, Vests	Slacks and Skirts

		MIL-C-12369 Class 1	MIL-C-12369 Class 2	MIL-C-12369 Class 3	MIL-C-51251
<u>FABRIC</u>	Generic Name	Ballistic	Ballistic	Ballistic	Plain
	Weave	2x2 Basket	2x2 Basket	2x2 Basket	
	Warp Ends/Inch	46	46	46	
	Filling Ends/Inch	42	42	42	
	Weight-Min. Oz./Sq. Yd.	13.5	13.5	13.5	
	Weight-Max. Oz./Sq. Yd.	15.0	15.0	15.0	7.0
	Width	48"-49"	48"-49"	48"-49"	
	Minimum Roll Length	80-120 Yds.	80-120 Yds.	80-120 Yds.	100-300 Yds.
	Minimum Break	900	900	900	
		825	825	825	
	Minimum Tear				
	Maximum Shrinkage	3.0	2.0	3.0	
		2.0	2.0	2.0	
	Maximum Elongation				
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability				
<u>Processes:</u>	Singeing ?				
	Bleaching ?				
	Mercerizing ?				
	Dyeing ?		X	X	
	Printing ?			X	
	Coating ?				X
	Fusing ?				
	Dyes Used ?		Acid	Acid	Butyl Rubber
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				X
	Water Repellent ?		X	X	X
	Hydrostatic Resist ?				X
	Stiffness ?				X
	Coating Adhesion ?				X
	Coating Distribution ?				X
	Blocking ?				X
	Color Matching ?		X	X	
	Labile Sulphur ?				
	Resistant to Insect				
	Repeal ?				
	Leakage ?				
	Spray Rating ?		X	X	
	Colorfastness ?		X	X	
	pH Test ?		X	X	
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Repeal				
<u>FIBERS</u>	Types of Fibers	Nylon	Nylon	Nylon	Nylon
	% in Yarn	100.0	100.0	100.0	100.0
	% Tolerance				
	Staple Length				
	Denier	1,050	1,050	1,050	
	Tenacity	High	High	High	
	Cross-Section				
	Luster	Bright	Bright	Bright	
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<u>YARNS</u>	Cotton Count				
	Ply				
		Singles	Singles	Singles	
		Singles	Singles	Singles	
	Type Yarn	Flat Filament	Flat Filament	Flat Filament	
		Flat Filament	Flat Filament	Flat Filament	
	Carded or Combed				
<u>INTENDED USE</u>		Ballistics Cloth	Ballistics Cloth	Ballistics Cloth	CBR Protective Hoods

		MIL-C-41820 Type I	MIL-C-41820 Type I	MIL-C-41820 Type II	MIL-C-41820 Type II	MIL-C-41820 Type III	MIL-C-41820 Type III
<u>FABRIC</u>	Generic Name	Gabardine	Gabardine	Gabardine	Gabardine	Gabardine	Gabardine
	Weave	2/1 Right	2/1 Right	2/1 Right	2/1 Right	2/1 Right	2/1 Right
	Warp Ends/Inch	110		110		92	
	Filling Ends/Inch	52		62		42	
	Weight-Min. Oz./Sq. Yd.	6.0		6.4		8.0	
	Max. Oz./Sq. Yd.						
	Width						
	Minimum Roll Length	40 Yds.	40 Yds.	40 Yds.	40 Yds.	40 Yds.	40 Yds.
	Minimum Break	W 210		W 210		280	
		F 90		F 105		120	
	Minimum Tear	W		W			
		F		F			
	Maximum Shrinkage	W 3.5		W 2.5		W 3.5	
		F 2.0		F 1.5		F 2.0	
	Maximum Elongation	W		W		W	
		F		F		F	
	Maximum Non-Fibrous Mat.	2.0		2.0		2.0	
<u>Processes:</u>	Maximum Air Permeability						
	Singeing ?						
	Bleaching ?						
	Mercerizing ?						
	Dyeing ?	X		X		X	
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?	Yats/Disperse	Yats/Disperse	Yats/Disperse	Yats/Disperse	Yats/Disperse	Yats/Disperse
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	X		X		X	
	Labile Sulfur ?	X		X		X	
	Resistant to Insult						
	Repeel ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?	X		X		X	
	pH Test ?	X		X		X	
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Wapped						
<u>FIBERS</u>	Types of Fibers	Polyester	Rayon	Polyester	Rayon	Polyester	Rayon
	% in Yarn	70.0	30.0	70.0	30.0	70.0	30.0
	% Tolerance	±5.0	±5.0	±5.0	±5.0	±5.0	±5.0
	Staple Length						
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool						
	Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
<u>YARNS</u>	Cottl. Count	W 40/2	40/2	W 40/2	40/2	W 40/2	40/2
		F 40/2	40/2	F 40/2	40/2	F 40/2	40/2
	Ply	W 2-Ply	2-Ply	W 2-Ply	2-Ply	W 2-Ply	2-Ply
		F 2-Ply	2-Ply	F 2-Ply	2-Ply	F 2-Ply	2-Ply
	Type Yarn	W Spun	Spun	W Spun	Spun	W Spun	Spun
		F Spun	Spun	F Spun	Spun	F Spun	Spun
	Combed or Combed	W		W		W	
		F		F		F	
<u>INTENDED USE</u>		Clothing	Clothing	Clothing	Clothing	Clothing	Clothing

		MIL-C-43525 Type I	MIL-C-43525 Type I	MIL-C-43525 Type II	MIL-C-43525 Type II
<u>FABRIC</u>	Generic Name		Satin		Satin
	Weave		S-Harness		B-Harness
	Warp Ends/Inch		275		190
	Filling Ends/Inch		95		40
	Weight-Min. Oz./Sq. Yd.		9.0		8.2
	-Max. Oz./Sq. Yd.				
	Width				
	Minimum Roll Length		50 Yds.		50 Yds.
	Minimum Break	M	85		140
		F	100		80
	Minimum Tear	M			
		F			
	Maximum Shrinkage	M	4.0		4.0
		F	2.0		2.0
	Maximum Elongation	M			
		F			
	Maximum Non-Fibrous Mat.				
	Maximum Air Permeability				
<u>Processes:</u>	Singeing ?				
	Bleaching ?				
	Mercerizing ?				
	Dyeing ?		I		I
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?				
	Coating Used ?				
	Infrared Reflect ?				
	Odor Test ?				
	Water Repellent ?				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?		I		I
	Labile Sulfur ?				
	Resistant to Insect				
	Repel ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?		I		I
	pH Test ?		I		I
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Napped				
<u>FIBERS</u>	Types of Fibers	Acetate	Rayon	Rayon	Cotton
	% in Yarn	Warp	Filling	Warp	Filling
	% Tolerance				
	Staple Length				
	Denier				
	Tenacity				
	Cross-Section				
	Luster				
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
	Carbonization Temp.				
	Treatments				
<u>YARNS</u>	Cotton Count	M	100 Denier	150 Denier	
		F			
	Ply	M	14/1		6/1
		F			
	Type Yarn	M	Singles	Multi Filament	Singles
		F	Spun		Spun
<u>INTENDED USE</u>	Carded or Combed	M			Combed
		F			
		Women's	Women's	Women's	Women's
		Overcoat	Overcoat	Overcoat	Overcoat
		Lining	Lining	Lining	Lining

		NIL-C-41820 Type I	NIL-C-41820 Type I	NIL-C-41820 Type II	NIL-C-41820 Type II	NIL-C-41820 Type III	NIL-C-41820 Type III
FABRIC	Generic Name	Gabardine	Gabardine	Gabardine	Gabardine	Gabardine	Gabardine
	Weave	2/1 Right	2/1 Right	2/1 Right	2/1 Right	2/1 Right	2/1 Right
	Warp Ends/Inch	110		110		92	
	Filling Ends/Inch	52		62		42	
	Weight-Min. Oz./Sq. Yd.	6.0		6.4		8.0	
	Max. Oz./Sq. Yd.						
	Width						
	Minimum Roll Length	40 Yds.	40 Yds.	40 Yds.	40 Yds.	40 Yds.	40 Yds.
	Minimum Break	210		210		230	
		90		105		120	
	Minimum Tear						
	Maximum Shrinkage	3.5		2.5		3.5	
		2.0		1.5		2.0	
	Maximum Elongation						
	Maximum Non-Fibrous Mat.	2.0		2.0		2.0	
	Maximum Air Permeability						
Processes:	Singeing ?						
	Bleaching ?						
	Mercurizing ?						
	Dyeing ?	X		X		X	
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?	Yacs/Disperse	Yacs/Disperse	Yacs/Disperse	Yacs/Disperse	Yacs/Disperse	Yacs/Disperse
	Coating Used ?						
	Infrared Reflect ?						
	Other Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	X		X		X	
	Labile Sulphur ?	X		X		X	
	Resistant to Insect						
	Repeel ?						
	Leakage ?						
	Spray Raging ?						
	Colorfastness ?	X		X		X	
	pH Test ?	X		X		X	
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Humble Press						
	Shrink Resistant						
	Grease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Hopped						
FIBERS	Types of Fibers	Polyester	Rayon	Polyester	Rayon	Polyester	Rayon
	S in Yarn	70.0	30.0	70.0	30.0	70.0	30.0
	S Tolerance	±5.0	±5.0	±5.0	±5.0	±5.0	±5.0
	Staple Length						
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool						
	Grade Wool						
YARNS	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
	Cotton Count	40/2	40/2	40/2	40/2	40/2	40/2
		40/2	40/2	40/2	40/2	40/2	40/2
	Ply	2-Ply	2-Ply	2-Ply	2-Ply	2-Ply	2-Ply
		2-Ply	2-Ply	2-Ply	2-Ply	2-Ply	2-Ply
	Type Yarn	Spun	Spun	Spun	Spun	Spun	Spun
		Spun	Spun	Spun	Spun	Spun	Spun
INTENDED USE	Cargoes or Combined						
		Clothing	Clothing	Clothing	Clothing	Clothing	Clothing

FABRIC		NIL-C-43128	NIL-C-21852 Type I	NIL-C-21852 Type II	NIL-C-21852 Type III	NIL-C-21852 Type IV
		Plain	Taffeta	Taffeta	Taffeta	Taffeta
	Grain	Plain	Plain	Plain	Plain	Plain
	Warp Ends/Inch	30	100	95	100	100
	Filling Ends/Inch	56	66	65	92	71
	Weight-Min. Oz./Sq. Yd.	3.3			2.0	1.75
	Weight-Max. Oz./Sq. Yd.	4.8	1.2	1.5	2.3	2.05
	Width					
	Minimum Roll Length	40 Yds.	75 Yds.	75 Yds.	40 Yds.	40 Yds.
	Minimum Break	275	80	75	110	110
	Minimum Tear	225	55	75	95	85
	Maximum Shrinkage					
	W	1.0	2.0	2.0	2.0	2.0
	F	2.0	2.0	2.0	2.0	2.0
	Maximum Elongation					
	W	1.0	2.0	2.0	2.0	2.0
	F	2.0	2.0	2.0	2.0	2.0
	Maximum Non-Fibrous Mat.	2.0	2.0	2.0	1.3	1.3
	Maximum Air Permeability					
PROCESSES:	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?	X	X	X	X	X
	Printing ?					
	Coating ?					
	Finishing ?					
	Dyes Used ?	Acid	Acid	Acid	Acid	Acid
	Coating Uses ?					
	Infrared Reflect ?					
	Shrink Test ?					
	Water Repellent ?	X				
	Hydrostatic Resist ?					
	Stiffness ?	X	X	X	X	X
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?	X	X	X	X	X
	Little Solvent ?	X				
	Resistant to Insect					
	Resist ?					
	Leakage ?					
	Spray Racking ?	X				
	Colorfastness ?	X	X	X	X	X
	Oil Test ?	X	X	X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Acidfast ?					
	Heat Resistant ?		X	X	X	X
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Washes					
FIBERS	Type of Fibers	Nylon	Nylon	Nylon	Nylon	Nylon
	Size Range	100.0	100.0	100.0	100.0	100.0
	Staple Length					
	Denier					
	Tenacity		Regular	Regular	Regular	Regular
	Cross-Section					
	Luster	Bright	Semi-Dull	Semi-Dull	Semi-Dull	Semi-Dull
	Type and					
	Treatments					
	Type and					
	Carbonization Temp.					
	Treatments					
YARNS	Cotton Count	4	50 Denier	50 Denier	70 Denier	70 Denier
	Ply	4	50 Denier	70 Denier	70 Denier	70 Denier
	Type yarn	4	Wet Filament	Wet Filament	Wet Filament	Wet Filament
	Carded or Combed	4	Wet Filament	Wet Filament	Wet Filament	Wet Filament
		4				
INTENDED USE		Parachutes	Parachutes	Parachutes	Parachutes	Parachutes
		and	and	and	and	and
		Lining	Lining	Lining	Lining	Lining

FABRIC	Generic Name	NIL-C-31814	NIL-C-43234	NIL-C-44043 Types 1, 2	NIL-C-44043 Type 3
		Twill	Plain	Plain	Plain
	Weave	2/2 Right			
	Warp Ends/Inch	38	60	33	33
	Filling Ends/Inch	30	34	32	32
	Weight-Min. Oz./Sq. Yd.	5.2	4.8	7.7	7.7
	Weight-Max. Oz./Sq. Yd.	5.6		8.3	8.3
	Width			48"-49"	48"-49"
	Minimum Roll Length	30 Yds.	40 Yds.	80-120 Yds.	80-120 Yds.
	Minimum Break	4 185	75		
	Minimum Tear	4 13	55		
	Maximum Shrinkage	4 2.0	4.5	3.0	3.0
	Maximum Elongation	4 2.0	3.5	2.0	2.0
	Maximum Non-Fibrous Mat.	1.0			
	Maximum Air Permeability				
Processes:	Singeing ?				
	Bleaching ?				
	Mercerizing ?				
	Dyeing ?		X	X	X
	Printing ?				X
	Coating ?				
	Finishing ?				
	Dyes Used ?			Acids	Acids
	Coating Used ?				
	Infrared Reflect ?			X	X
	Odor Test ?				
	Water Repellent ?			X	X
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Blocking ?				
	Color Matching ?	X	X	X	X
	Labile Sulphur ?				
	Resistant to Insect				
	Recal ?				
	Leakage ?				
	Spray Rating ?				
	Colorfastness ?	X	X	X	X
	pH Test ?	X	X	X	X
	Mildew Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?	X			
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Grease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Noted				
FIBERS	Types of Fibers	Aramid	Acrylic	Nylon	Nylon
	% in Yarn	100.0	100.0	100.0	100.0
	% Tolerance				
	Staple Length				
	Denier	2/Filament	3/Filament		
	Tenacity			Extra-High	Extra-High
	Cross-Section				
	Luster			Bright	Bright
	Type Wool				
	Grade Wool				
	Treatments				
	Type Aramid				
FIBERS	Carbonization Temp.				
	Treatments				
	Noted				
FIBERS	Cotton Count	4		340 Den.	340 Den.
	Ply	4	Singles	340 Den.	340 Den.
	Type Yarn	4	Singles		
	Carded or Combed	4	Spun	Multi Filament	Multi Filament
			Spun	Multi Filament	Multi Filament
INTENDED USE		Flight Clothing	Insulating Cam	Body Armor	Body Armor
VOLUME		165,423	90,990	90,984	

		NIL-C-20696	NIL-C-20696	NIL-C-20696	NIL-C-20696	NIL-C-20696	NIL-C-20696
		Type I	Type II	Type III/Class 1	Type III/Class 2	Type III/Class 3	Type III/Class 5
<b>FABRIC</b>	Generic Name	Plain	Plain	Plain	Plain	Plain	Plain
	Warp Ends/Inch	18	22	50	50	50	50
	Filling Ends/Inch	18	22	45	45	45	45
	Weight Min. Oz./Sq. Yd.	2.1	4.8	7.25	7.25	7.25	7.25
	Weight Max. Oz./Sq. Yd.	2.3	5.4	7.25	7.25	7.25	7.25
	Width	> 19"	> 19"	> 19"	> 19"	> 19"	> 19"
	Minimum Ball Length	30-125 Yds.	30-125 Yds.	30-125 Yds.	30-125 Yds.	30-125 Yds.	30-125 Yds.
	Minimum Break	115	225	275	275	275	275
	Minimum Tear	115	225	20	20	20	20
	Maximum Shrinkage						
	Maximum Elongation						
	Maximum Spunfibers Mod.						
	Maximum Air Permeability						
	Processes:						
	Singeing ?						
	Sanitizing ?						
	Scouring ?						
	Finishing ?						
	Coating ?						
	Dyes Used ?						
	Coating Used ?						
<b>FIBERS</b>	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?						
	Label Solvent ?						
	Resistant to Insect ?						
	Leakage ?						
	Soapy Rating ?						
	Colorfastness ?						
	Oil Test ?						
<b>YARNS</b>	Mildew Resistance ?						
	Acid Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Crease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Wadded						
	Types of Fibers	Nylon	Nylon	Nylon	Nylon	Nylon	Nylon
	% in yarn	100.0	100.0	100.0	100.0	100.0	100.0
	% Tolerance						
	Staple Length						
	Denier						
	Tenacity	High	High	High	High	High	High
	Cross-section						
	Luster	Bright	Bright	Bright	Bright	Bright	Bright
	Type Wool						
	Grade wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
<b>INTENDED USE</b>	Yarns						
	Count Count						
	Ply						
	Type Yarn						
	Corded or Combed						
	Intended Use	Covers and Shelters	Covers and Shelters	Survival Containers	Survival Containers	Survival Containers	Survival Containers

		MIL-C-21108 Type I	MIL-C-21108 Type II	MIL-C-19002	MIL-C-1395 Type I	MIL-C-1395 Type II
<b>FABRIC</b>	Generic Name	Twill	Plain	Twill	Netting	Netting
	Weave	Rip-Stop	Plain	2/1 Right	Long Plain	Warp Kest
	Warp Ends/Inch	80	22		55	55
	Filling Ends/Inch	80	22		55	55
	Weight-Min. Oz./Sq. Yd.	2.4	4.5	3 or 9		
	Weight-Max. Oz./Sq. Yd.	2.7	5.5	3.3 10.7	1.6	2.0
	Width			Various		
	Minimum Roll Length	50 Yds.	50 Yds.		100 Yds.	100 Yds.
	Minimum Break	115	225		50	50
		115	225		50	50
	Minimum Tear	8	45			
		8	38			
	Maximum Shrinkage	2.0	2.0		2.0	2.0
		2.0	2.0		2.0	2.0
	Maximum Elongation	2.0	2.0			
		2.0	2.0			
	Maximum Non-Fibrous Mat.	1.0	1.0			
	Maximum Air Permeability					
<b>Processes:</b>	Singeing ?					
	Bleaching ?					
	Mercerizing ?					
	Dyeing ?				X	X
	Printing ?					
	Coating ?			X		
	Fusing ?					
	Dyes Used ?					
	Coating Used ?					
	Infrared Reflect ?					
	Odor Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?					
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?					
	Labile Sulphur ?					
	Resistant to Insect					
	Repel ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?					
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Salt Release Treatment					
	Antistatic Finish					
	Wadded					
<b>FIBERS</b>	Types of Fibers	Nylon	Nylon	Nylon	Nylon	Nylon
	% in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length					
	Denier					
	Tenacity	High	High			
	Cross-Section					
	Luster	Bright	Bright		Semi-Dull	Semi-Dull
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
<b>YARNS</b>	Cotton Count	840 Den	840 Den		70 Den	70 Den
	Ply	840 Can	840 Can		70 Den	70 Den
	Type Yarn				Multi Filament	Multi Filament
					Multi Filament	Multi Filament
	Carded or Combed					
<b>INTENDED USE</b>		Reft Bottoms	Reft Bottoms	Pneumatic Life Preservers	Tentage	Tentage

			MIL-C-43876	MIL-C-43375	MIL-C-43204 Type	MIL-C-43204 Type II	MIL-C-43204 Type III
			Plain	Duck Plain	Spacer 3-Harp	Spacer Honeycomb	Spacer 3-Harp
<b>FABRIC</b>	Generic Name						
	Warp Ends/Inch		46	56			
	Filling Ends/Inch		42	28			
	Weight-Min. Oz./Sq. Yd.		9.5	12.5	9.5	15	5.25
	Max. Oz./Sq. Yd.		11.5		11.5	19.5	10.25
	Width		64"		58"	58"	58"
	Minimum Roll Length		40 Yds.	80 Yds.	35 Yds.	35 Yds.	35 Yds.
	Minimum Break	M	170	800	110	175	110
		F	165	700	200	100	180
	Minimum Tear	M	10				
		F	10				
	Maximum Shrinkage	M		2.0	4.0	8.5	8.5
		F		2.0	2.0	6.2	2.0
	Maximum Elongation	M		2.0	4.0	8.5	8.5
		F		2.0	2.0	6.2	2.0
	Maximum Non-Fibrous Mac.		0.5				
	Maximum Air Permeability		6.0	3.0			
<b>Processes:</b>	Singeing ?						
	Bleaching ?						
	Mercurizing ?						
	Dyeing ?			X			
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?			Acids			
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?		X	X			
	Hydrostatic Resist ?						
	Stiffness ?		X				
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?		X	X			
	Labile Sulphur ?						
	Resistant to Insect						
	Repel ?						
	Leakage ?						
	Spray Rating ?		X	X			
	Colorfastness ?		X	X			
	pH Test ?		X	X			
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistant ?		X				
	Flame Resistant ?						
	Double Press						
	Shrink Resistant						
	Crease Resistant						
	Spill Release Treatment						
	Antistatic Finish						
	Waxed						
<b>FIBERS</b>	Types of Fibers		Modacrylic	Nylon	Olefin	Olefin	Olefin
	% in Yarn		100.0	100.0	100.0	100.0	100.0
	% Tolerance						
	Staple Length		1.75"-2"				
	Denier		1.7-2.8	840	840	840	840
	Tenacity						
	Cross-Section						
	Luster			Bright	Bright	Bright	Bright
	Type Wool						
	Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
<b>YARNS</b>	Cotton Count	M	12/1				
		F	8/1				
	Ply	M	Singles	3-Ply	1-Ply	3-Ply	3-Ply
		F	Singles	3-Ply	3-Ply	3-Ply	3-Ply
	Type Yarn	M	Spun	Multi Filament	Multi Filament	Multi Filament	Multi Filament
		F	Spun	Multi Filament	Multi Filament	Multi Filament	Multi Filament
	Carded or Combed	M					
		F					
<b>INTENDED USE</b>			Tents	Canteen Covers	Canteen Covers	Canteen Covers	Canteen Covers

FABRIC	Generic Name	MTL-C-40039	MTL-C-12180	MTL-C-43774	MTL-C-43734 Class 1	MTL-C-43734 Class 2
		Twill 2/1 Right	Twill 2/1 Right	Plain Plain	Duck Plain	Duck Plain
	Wave Ends/Inch				35	35
	Filling Ends/Inch				28	28
	Weight-Min. Oz./Sq. Yd.	6	11	3.0	8.5	8.5
	Max. Oz./Sq. Yd.	7.3	13.5		9.5	9.5
	Width					
	Minimum Roll Length	150-175 Yds.	180-220 Yds.	40 Yds.	40 Yds.	40 Yds.
	Minimum Break	80	180	80	500	500
	Minimum Tear	80	170	80	300	300
	Maximum Shrinkage			4.0		
	Maximum Elongation			2.0		
	Maximum Non-Fibrous Mat.					
	Maximum Air Permeability				10	10
Processes:	Singeing ?					
	Bleaching ?					
	Mercurizing ?				X	X
	Dyeing ?				X	X
	Printing ?					Roller or Screen
	Coating ?	X	X			
	Fusing ?					
	Dyes Used ?				Acid	Acid
	Coating Used ?	Vinyl	Butyl			
	Infrared Reflect ?				X	X
	Odor Test ?					
	Water Repellent ?					
	Hydrostatic Resist ?	X	X			
	Stiffness ?	X	X			
	Coating Adhesion ?	X	X			
	Coating Distribution ?	X	X			
	Blocking ?	X	X			
	Color Matching ?	X	X	X	X	X
	Labile Sulphur ?					
	Resistant to Insect					
	Repel ?					
	Leakage ?	X	X			
	Spray Rating ?	X	X			
	Colorfastness ?	X	X	X	X	X
	pH Test ?	X	X	X	X	X
	Mildew Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?			X		
	Heat Resistance ?					
	Flame Resistance ?			X		
	Durable Press					
	Shrink Resistant					
	Crease Resistant					
	Soil Release Treatment					
	Antistatic Finish					
	Wadded					
FIBERS	Types of Fibers	Nylon	Nylon	Aramid	Nylon	Nylon
	% in Yarn	100.0	100.0	100.0	100.0	100.0
	% Tolerance					
	Staple Length			1 1/2"-2"		
	Denier			1.5-2	1,000	1,000
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
YARNS	Cotton Count	M				
	Ply	F				
	Type Yarn	M		Singles Singles Sewn	Singles Singles Bulked Continuous Bulked Continuous	Singles Singles Bulked Continuous Bulked Continuous
	Carded or Combed	M				
		F				
INTENDED USE		Ponchos	Impermeable Clothing	Cover Fabric	Shoes	Fragment Vests

# KNITS

FABRIC	Generic Name	ML-C-3735	ML-C-3735	ML-C-3735	ML-C-3735	ML-C-3735	ML-C-3735
		Type I/Class I	Type I/Class 2	Type I/Class 2	Type I/Class 2	Type III	Type IV
	Wale	1 x 1 Rib	1 x 1 Rib	1 x 1 Rib	1 x 1 Rib	1 x 1 Rib	1 x 1 Rib
	Wales/Inch	Circular Knit	Circular Knit	Circular Knit	Circular Knit	Circular Knit	Circular Knit
	Courses/Inch						
	Weight-Std. Oz./Sq. Yd.	15.0	11.0	11.0	11.0	11.0	12.5
	Max. Oz./Sq. Yd.						
	Width						
	Minimum Roll Length	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards	40 Yards
	Minimum Break	U					
		F					
	Minimum Tear	U					
		F					
	Maximum Shrinkage	U					
		F					
	Maximum Elongation	U					
		F					
	Maximum Non-Fibrous Mat.	1.0	1.0	1.0	1.0	1.0	1.0
	Maximum Air Permeability						
Processes:	Singeing ?						
	Bleaching ?						
	Mercerizing ?						
	Dyeing ?	Stach					
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?						
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Bleaching ?						
	Color Matching ?	1	1	1	1	1	1
	Labile Sulphur ?						
	Resistant to Insect						
	Apopt ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?	1	1	1	1	1	1
	pH Test ?	1	1	1	1	1	1
	Widow Resistance ?						
	Apopt Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?	1	1	1	1	1	1
	Durable Press						
	Shrink Resistant						
	Grease Resistant						
	Salt Release Treatment						
	Antistatic Finish						
	Washed						
FIBERS	Type of Fibers	Wool	Wool	Wool	Wool	Polyester	Aramid
	5 in Yarn	100.0	100.0	100.0	100.0	100.0	100.0
	5 Tolerance	-5.0	-5.0	-5.0			
	Stable Length						
	Denier						1.5-2.0
	Tenacity						1.5
	Cross-Section						
	Luster						
	Type Wool	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled	Fleece or Pulled	Semi-Wool	
	Grade Wool	>50's	>50's	>50's	>50's		
TREATMENTS	Treatments	Chlorination	Chlorination	Chlorination	Chlorination		
	Type Aramid						
	Carbonization Temp.						
	Treatments						
TARNS	Cotton Count	U				100 Den. as Ends	50/1
		F					
	Ply	U	1-Ply	2-Ply	2-Ply	2-Ply	2-Ply
		F					
	Type Yarn	U	Spun	Spun	Spun	Spun	Spun
INTENDED USE		F				Text. Filament	
	Combed or Carded	U	Combed	Combed	Combed	Combed	
		F					
			Cuffs, etc.	Cuffs, etc.	Cuffs, etc.	Cuffs, etc.	Cuffs, etc.

FABRIC		41L-17197	41L-17197	41L-17198	41L-17198	41L-17198
		25 Gauge Fitted Kite	Waffle Kite Tachet	Piece 4000	Piece 4000	Piece 4000
	Isometric Tensile					
	Adhere					
	Adhere/Inch	37				
	Adhere/Inch	39				
	Adhere-Min. Oz./Sq. Yd.	1.8	10.2	9.5	9	9
	Adhere-Max. Oz./Sq. Yd.	2.2	12.1	11.5	9.6	10
	Width	50"-60"				
	Minimum Roll Length	35-110 Yards		15 Yards	15 Yards	15 Yards
	Minimum Break					
	Minimum Tear					
	Minimum Shrinkage		12.0			
	Maximum Elongation		12.3			
	Maximum Non-Fibrous Mat.		1.0			
	Maximum Air Permeability					
Processes:	Singeing ?					
	Bleaching ?					
	Mercurizing ?					
	Dyeing ?	1		1	1	1
	Printing ?					
	Coating ?	1				
	Finishing ?					
	Dyes Used ?					
	Coating Used ?	Form				
	Infrared Reflect ?					
	Odor Test ?	1				
	Acid Resistant ?					
	Hydrostatic Resist ?	1				
	Stiffness ?					
	Coating Adhesion ?	1				
	Coating Distribution ?	1				
	Bleaching ?	1				
	Color Matching ?	1	1	1	1	1
	Latex Solvent ?					
	Resistant to Insects					
	Resist ?					
	Leakage ?					
	Spray Rating ?					
	Colorfastness ?			1	1	1
	pH Test ?	1	1	1	1	1
	Weld Resistance ?					
	Resin Finish ?					
	Ballistic Resistance ?					
	Antistatic ?					
	Heat Resistance ?					
	Flame Resistance ?	1				
	Shrinkage					
	CRACK RESISTANCE					
	Self Release Treatment					
	Antistatic Finish					
	Notes					
FIBERS	Type of Fibers	Nylon	Cotton	Nylon	Nylon	Nylon
	Size Range	100.0	100.0	100.0	100.0	100.0
	Stability					
	Stable Length					
	Joiner			200/70	70/70	200/100
	Tenacity					
	Cross-Section					
	Luster					
	Type Wool					
	Spun Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
YARNS	Cotton Count	40 Den.	10/1-22/1			
	Wt					
	Wt					
	Type Yarn		Spun	Core, Filament	Core, Filament	Core, Filament
	Carries or Carries		Carries			
INTENDED USE						
		Chemical Lubricated Protection	Cold Weather Protection	Linings	Linings	Linings

FABRIC	Generic Name	NIL-C-43938	NIL-C-43958	NIL-C-43959	NIL-C-43247 Class 1	NIL-C-43247 Class 2	NIL-C-43247 Class 3
		Linear Look	Tricot		Tubular	Tubular	Tubular
	Wales, Inch	40	40		Circular	Circular	Circular
	Courses, Inch	23	40		30	30	30
	Filling Ends/Inch	38	47		25	40	28
	Weight-Min. Oz./Sq. Yd.	6.8	5		4.5	10	10
	Weight-Max. Oz./Sq. Yd.	7.2	9.5		7.5	11	11.5
	Width	60"					
	Minimum Roll Length	50 Yards	40 Yards		20 Yards	20 Yards	20 Yards
	Minimum Break	4					
	Minimum Tear	4					
	Maximum Shrinkage	2.5	1.0		2	2	2
		2.5	4.0		1	1	1
	Maximum Elongation	1.0	1.0		2	2	2
		1.0	4.0		1	1	1
	Maximum Non-Fibrous Mat.		2.0				
	Maximum Air Permeability						
Processes:	Singeing ?						
	Bleaching ?						
	Mercerizing ?						
	Dyeing ?				1	1	1
	Printing ?						
	Coating ?						
	Fusing ?						
	Dyes Used ?				Acids	Acids	Acids
	Coating Used ?						
	Infrared Reflect ?						
	Door Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?	1	1		1	1	
	Soil Sulphur ?						
	Resistant to Insect						
	Reel ?						
	Leakage ?						
	Spray Painting						
	Colorfastness ?	1	1		1	1	
	pH Test ?	1	1		1	1	
	Mildew Resistance ?						
	Begin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Unfold Press						
	Shrink Resistant						
	Crease Resistant						
	Oil Release Treatment						
	Antistatic Finish						
	Washed						
STRUCTURE	Types of Fibers	Polyester	Nylon	Triacetate	Nylon	Nylon	Nylon
	% in yarn	100.0	50.0	50.0	100.0	100.0	100
	% Tensile		45	45			
	Denier						
	Tenacity	Regular	Regular				
	Cross-section						
	Twist	Self-twist	Self-twist				
	Type wool						
	Grain wool						
	Treatments						
	Type finish						
	Carbonization Temp.						
	Treatments						
YARN	Yarn Count	4					
	Ply	2					
	Type yarn	4					
	Twist						
	Twist in Yarn						
INTENDED USE		Women's Uniforms	Shirting	Shirting	Coats	Coat Liner	
VOLUME		409,465	175,107		119,386		

		WIL-C-47992	WIL-C-47998	WIL-C-48021	WIL-C-48006 Type I	WIL-C-48006 Type II
<b>FABRIC</b>	Generic Name	Rib	Jersey	Reenet	Simplex	Simplex
	Weight/yard	20		20	Knitted	Knitted
	Count/inch	20		20	40	40
	Weight/inch, 32/54, 16.	5.5	2.2	10.5	9.5	7.5
	Max. 32/54, 16.		2.5			
	Width	60"			36"	36"
	Minimum Roll Length	50 Yards			35 Yards	35 Yards
	Minimum Break	4				
	Minimum Tear	4				
	Maximum Shrinkage	4		1.0		
	Maximum Elongation	4		1.0		
	Maximum Non-Fibrous Mat.	4		1.0		
	Maximum Air Permeability					
<b>Processes:</b>	Singeing ?					
	Bleaching ?					
	Mercurizing ?					
	Dyeing ?					
	Printing ?					
	Coating ?					
	Finishing ?					
	Dyes Used ?					
	Coating Used ?					
	Infrared Reflect ?					
	Water Repellent ?					
	Hydrostatic Resist ?					
	Stiffness ?					
	Coating Adhesion ?					
	Coating Distribution ?					
	Blocking ?					
	Color Matching ?					
	Labile Solvent ?					
	Resistant to Insects					
	Resist ?					
	Leakage ?					
	Spray Resist ?					
	Colorfastness ?					
	Oil Test ?					
	Wider Resistance ?					
	Basic Finish ?					
	Salinetic Resistance ?					
	Acidfast ?					
	Heat Resistance ?					
	Flame Resistance ?					
	Durable Press					
	Special Resistance					
	Soil Release Treatment					
	Antistatic Finish					
	Washable					
<b>FIBERS</b>	Type of Fibers	Polyester	Nylon	Nylon	Cotton	Cotton
	5 in 1 yarn	100.0	100.0	100.0	100.0	100.0
	5 Tolerance					
	Stable Length					
	Denier	100				
	Twist	Regular				
	Cross-Section					
	Luster	Semi-sat				
	Type Wool					
	Grade Wool					
	Treatments					
	Type Aramid					
	Carbonization Temp.					
	Treatments					
<b>YARNS</b>	Cotton Count	4				
	Ply	4				
	Type Yarn	4				
	Carded or Combed	4				
<b>ATTACHED USE</b>	Ammonia					
	Uniform					
	Protection					
	Clothing					
	Stiffener					
	in Field Cases					
	Gloves					
	Scarves					
	etc.					

		NIL-C-4500	NIL-C-4500	NIL-C-4500	NIL-C-4500
		Pile 1/2 ± 1/16	Pile 1/2 ± 1/16	Pile 1/2 ± 1/16	Pile 1/2 ± 1/16
<b>FABRIC</b>	Sample Name				
	Acres				
	Acres/Inch				
	Courses/Inch				
	Weight - Wt. Oz./Sq. Yd.	26	27	28.3	4
	Max. Oz./Sq. Yd.				6
	Width			13 1/2" - 54 1/2"	
	Minimum Roll Length			15 ± 1/2 Yd	90 Yards
	Minimum Break				
	Minimum Tear				
	Minimum Shrinkage				
	Minimum Elongation				
	Maximum Non-Fibrous Mat.				
<b>Processes:</b>	Maximum Air Permeability				
	Slipping ?				
	Stitching ?				
	Warping ?				
	Dyeing ?				
	Printing ?				
	Coating ?				
	Fusing ?				
	Dyes Used ?				
	Coating Used ?				
	Infrared Reflect ?				
	Door Test ?				
	Water Repellent ?				
	Hydrostatic Resist ?				
	Stiffness ?				
	Coating Adhesion ?				
	Coating Distribution ?				
	Slacking ?				
	Color Matching ?				
	Label Solenoid ?				
	Resistant to Moist				
	Resist ?				
	Leakage ?				
	Sewer Rating ?				
	Colorfastness ?				
	on Test ?				
	Wider Resistance ?				
	Resin Finish ?				
	Ballistic Resistance ?				
	Antistatic ?				
	Heat Resistance ?				
	Flame Resistance ?				
	Durable Press				
	Shrink Resistant				
	Crease Resistant				
	Soil Release Treatment				
	Antistatic Finish				
	Washed				
<b>FIBERS</b>	Type of Fibers	Acrylic	Acrylonitrile Copolymer	Neocrylic	Nylon
	5 in Yarn	100	100	100	100
	5 Tolerance				
	Stable Length				
	Denier	6 or 7	6	6 1/2"	40
	Tenacity				
	Cross-Section				
	Luster				Same as all
	Type Wool				
	Grade Wool				
	Treatments				
	Type Amore				
	Carbonization Temp.				
	Treatments				
<b>YARNS</b>	Cotton Count				
	Wt				
	Yarn				
	Type Yarn				
	Grade or Count				
<b>INTENDED USE</b>		Align	Align	Align	Align
		Clothing	Clothing	Clothing	Clothing
		Lining	Lining	Lining	Lining

FABRIC	Generic Name	MIL-C-29365	MIL-C-29365	MIL-C-43836A Type 1/Class 1	MIL-C-43836A Type 1/Class 2	MIL-C-43836A Type II	MIL-C-43836A Type II
		Non-Maven	Non-Maven	Non-Maven Bonded	Non-Maven	Non-Maven Bonded	Non-Maven
	Weave						
	Warp Ends/Inch						
	Filling Ends/Inch						
	Weight-Min. Oz./Sq. Yd.	1.7					
	Weight-Max. Oz./Sq. Yd.	2.2					
	Width	35"					
	Minimum Roll Length						
	Minimum Break	M	3.0				
		F					
	Minimum Tear	M					
		F					
	Maximum Shrinkage	M	1.0				
		F					
	Maximum Elongation	M					
		F					
	Maximum Non-Fibrous Mat.						
	Maximum Air Permeability						
Processes:	Singeing ?						
	Bleaching ?						
	Mercurizing ?						
	Dyeing ?						
	Printing ?						
	Coating ?						
	Fusing ?		X				
	Dyes Used ?						
	Coating Used ?						
	Infrared Reflect ?						
	Odor Test ?						
	Water Repellent ?						
	Hydrostatic Resist ?						
	Stiffness ?						
	Coating Adhesion ?						
	Coating Distribution ?						
	Blocking ?						
	Color Matching ?		X				
	Labile Sulphur?						
	Resistant to Insect						
	Repel ?						
	Leakage ?						
	Spray Rating ?						
	Colorfastness ?		X				
	pH Test ?						
	Mildew Resistance ?						
	Resin Finish ?						
	Ballistic Resistance ?						
	Antistatic ?						
	Heat Resistance ?						
	Flame Resistance ?						
	Durable Press						
	Shrink Resistant						
	Grease Resistant						
	Soil Release Treatment						
	Antistatic Finish						
	Wapped						
FIBERS	Types of Fibers	Polyester	Nylon	Polyester	Polyester	Nylon	Rayon
	S in Yarn	50.0	50.0	100.0	100.0	80.0	20.0
	S Tolerance	±5	±5				
	Staple Length			Continuous Filament			
	Denier						
	Tenacity						
	Cross-Section						
	Luster						
	Type Wool						
	Grade Wool						
	Treatments						
	Type Aramid						
	Carbonization Temp.						
	Treatments						
YARNS	Cotton Count	M					
		F					
	Ply	M					
		F					
	Type Yarn	M					
		F					
	Carded or Combed	M					
		F					
INTENDED USE		Interlining		Interlining	Interlining	Interlining	Interlining

APPENDIX G. TEXTILE COMPONENT PEACETIME DEMAND (SCENARIO A) BY SPECIFICATION

SPECIFICATION NUMBER		KURT SALMON ASSOCIATES SCENARIO B							DATE 01/13/83	PAGE 1
SCENARIO A		M+9	M+12	M+18	M+24	M+30	M+36			
C-F-208	1,073	780	1,070	1,281	1,427	1,480	1,481			
C-T-301	11,084	822	801	828	848	823	810			
CC-C-487	804	312	488	830	847	840	832			
CCC-C-41	24,174	18,188	22,808	27,878	30,782	31,455	31,488			
CCC-C-418	3,882,038	2,784,489	3,045,837	4,710,107	4,884,482	4,944,778	4,927,471			
CCC-C-428	284,846	184,003	280,880	328,802	348,308	347,810	344,118			
CCC-C-428	828	21	31	35	38	40	41			
CCC-C-428	1,021,823	738,484	1,081,278	1,280,884	1,324,927	1,320,721	1,314,182			
CCC-C-430	2,288,812	1,480,711	2,088,207	2,482,704	2,730,181	2,783,881	2,787,818			
CCC-C-432	38,048	28,804	38,727	42,208	48,885	48,328	48,404			
CCC-C-438	3,778,132	2,887,842	4,412,728	5,117,248	5,331,838	5,287,280	5,274,480			
CCC-C-438	708,840	338,022	474,082	888,214	823,388	824,484	838,888			
CCC-C-440	7,882	8,798	8,827	9,881	10,178	10,048	9,892			
CCC-C-441	821	388	544	828	883	888	888			
CCC-C-448	72,870	88,830	78,244	92,881	100,884	102,418	102,808			
CCC-C-481	788,881	828,188	738,823	888,487	887,228	1,018,843	1,028,082			
CCC-C-487	2,821,880	2,128,878	3,131,448	3,842,278	3,807,447	3,783,840	3,788,888			

SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+38
CCC-C-478	1,888	1,845	2,481	2,843	2,980	2,971	3,000
FDD-L-20	65,835,778	54,801,012	78,001,018	92,834,941	98,533,889	98,948,391	98,955,498
DDD-T-88	2,885,408	2,870,248	4,108,000	4,922,779	5,352,148	5,421,889	5,448,840
JJ-W-153	31,488,828	28,178,353	37,831,284	44,278,020	48,830,438	40,858,988	48,850,201
KK-L-2004	12,027	10,533	15,211	17,828	19,873	18,893	18,809
KK-L-254							
KK-L-271	18,282	11,228	18,230	19,071	20,191	20,208	20,118
KSA-B-1000	10,482	8,925	12,483	14,890	16,870	16,982	17,158
KSA-C-1000	382,020	152,880	218,788	287,735	273,302	273,870	272,697
KSA-C-1100	1,234	289	443	812	522	810	503
KSA-C-1200	1,044,414	878,038	922,820	1,088,164	1,125,325	1,132,934	1,112,874
KSA-C-2000	1,359,797	938,844	1,438,701	1,880,818	1,897,708	1,854,945	1,838,938
KSA-C-3000	252,274	181,892	228,488	277,301	308,401	318,138	318,451
KSA-C-4000	81	62	80	104	108	108	107
KSA-C-5000	1,834	1,581	2,234	2,882	2,817	2,824	3,070
KSA-C-8000	152,283	181,513	215,208	284,852	273,473	275,812	278,280
KSA-C-9000	244,838	243,433	348,773	408,144	439,385	443,143	442,288

KURT SALMON ASSOCIATES								DATE 01/13/83	PAGE 3
SCENARIO B									
SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36		
KSA-K-1000	8,407,849	7,115,044	10,289,870	12,038,488	12,748,042	12,782,884	12,708,883		
KSA-K-2000	829,221	811,272	781,188	883,833	838,388	838,811	834,831		
KSA-K-3000	1,888,888	1,353,808	1,983,731	2,288,887	2,428,288	2,428,081	2,417,211		
KSA-K-4000	84,871	47,372	88,374	80,138	84,878	84,877	84,888		
KSA-K-5000	888	422	881	711	780	808	808		
KSA-K-6000	18,021	11,844	17,184	20,188	21,272	21,218	20,883		
KSA-K-7000	888,304	387,383	821,807	802,173	827,880	823,842	818,884		
KSA-K-8000	11,374	8,173	11,788	13,828	14,844	14,881	14,888		
KSA-K-900	1,440	1,081	1,848	1,788	1,844	1,821	1,782		
KSA-N-1000	4,242	3,377	4,718	5,872	6,270	6,418	6,804		
KSA-NW-100	23,470	51,777	70,883	81,878	88,218	88,808	88,278		
KSA-PC-100	28,488	20,778	31,883	38,808	37,883	38,720	38,200		
KSA-R-1000	8,080								
KSA-T-1000	172,884	143,228	208,488	238,884	280,381	287,428	278,017		
KSA-T-2000	887,001	380,388	831,121	838,834	708,180	722,813	732,488		
KSA-T-3000	8,344	11,848	17,711	20,483	20,880	20,408	20,117		
KSA-T-4000	283,188	181,881	283,788	338,440	348,828	338,820	333,704		

KURT SALMON ASSOCIATES SCENARIO B							DATE 01/13/83	PAGE 4
SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36	
KSA-W-000	30,840	7,217	11,089	12,789	13,088	12,785	12,873	
KSA-WP-100	8,332	4,848	8,351	7,838	8,444	8,844	8,789	
KSA-Y-1000	1,816,817,800	1,022,285,141	1,473,364,933	1,727,838,722	1,831,037,557	1,833,881,107	1,826,813,289	
KSA-Y-2000	15,143,228	18,158,808	21,874,023	25,806,388	27,588,088	27,832,271	27,888,309	
KSA-Y-3000	88,183	72,874	108,183	123,280	130,888	130,718	130,134	
L-S-125	888,820	442,804	847,818	783,138	788,478	781,350	772,847	
LPP-DES12-80	26,138	24,447	37,002	42,783	44,285	43,728	43,872	
LPP-DES13-80	10,184	8,507	14,380	18,828	17,214	17,004	18,923	
LPP-DES18-73	987,173	824,257	1,208,181	1,418,898	1,500,247	1,501,488	1,484,891	
LPP-DES23-73	474,883	383,420	526,308	617,278	653,538	654,078	651,188	
LPP-DES27-78	898,124	844,884	788,481	822,878	880,743	884,520	848,498	
LPP-DES8-78	88,732	77,808	114,070	131,787	137,249	138,380	138,500	
MIL-B-1887	481,218	350,887	538,338	621,883	634,884	620,308	611,482	
MIL-B-17787	170,118	125,231	181,367	212,708	225,192	225,372	224,378	
MIL-B-371	14,828,788	20,242,280	28,419,898	34,214,811	38,831,028	38,845,007	38,854,530	
MIL-B-41828	7,209,298	8,458,502	7,882,788	8,242,488	8,773,035	8,775,828	8,728,842	
MIL-B-893	1,184,196	1,084,838	1,553,283	1,815,808	1,911,042	1,905,324	1,893,712	

KURT SALMON ASSOCIATES						
SCENARIO B						
SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30
MIL-B-81813	107,185	68,010	97,185	114,304	121,893	122,312
MIL-B-87018	47,552	30,528	42,520	54,281	59,158	59,426
MIL-C-10178	1,105,137	896,150	1,297,021	1,487,720	1,808,098	1,831,878
MIL-C-10288	4,512,326	3,519,379	5,067,552	5,821,708	6,270,720	6,280,324
MIL-C-10789	12,488	9,397	13,599	15,812	16,828	17,011
MIL-C-10859	2,288,920	1,854,836	2,409,882	2,819,849	2,975,410	2,972,240
MIL-C-11065	858,870	706,144	1,015,845	1,192,818	1,281,450	1,281,808
MIL-C-12085	1,024,198	789,393	1,182,438	1,350,074	1,408,103	1,389,424
MIL-C-12189	3,068,303	2,505,301	3,780,351	4,345,271	4,525,702	4,498,388
MIL-C-12388	520,844	1,139,888	1,702,281	1,977,896	2,035,172	2,032,782
MIL-C-15082	11,978	45,170	66,177	78,486	81,863	82,105
MIL-C-15085	154,794	724,345	1,048,872	1,235,055	1,313,528	1,324,216
MIL-C-16290	330,335	220,500	308,925	376,730	418,328	427,384
MIL-C-16375	24,839	51,831	76,188	91,483	93,403	91,245
MIL-C-17155	721,705	841,271	755,331	813,848	1,007,881	1,028,625
MIL-C-17157	1,339,728	1,083,351	1,597,182	1,840,087	1,941,714	1,937,647
MIL-C-1734	2,560	2,788	4,016	4,840	5,064	5,201
						5,427

KURT SALMON ASSOCIATES  
SCENARIO 8

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SPECIFIC- TION NUMBER	SCENARIO A	M+8	M+12	M+16	M+24	M+30	M+36
MIL-C-19327	180,851	147,273	218,854	250,203	258,443	255,218	251,248
MIL-C-19002	828	804	824	852	1,005	1,011	993
MIL-C-19899	2,851	1,907	2,827	3,218	3,873	3,853	3,855
MIL-C-19789	853,300	870,007	827,014	1,100,181	1,197,054	1,219,298	1,220,478
MIL-C-20398	21,882	15,805	23,081	28,809	27,858	27,751	27,438
MIL-C-21113	4,890,389	4,318,894	6,270,458	7,318,958	7,883,428	7,898,978	8,181,781
MIL-C-2184	8,584	8,800	10,430	12,050	12,302	12,018	11,847
MIL-C-21952	284,737	178,543	250,888	302,110	328,853	334,258	335,148
MIL-C-21821	1,587,321	1,180,808	1,879,080	1,958,383	2,133,809	2,183,882	2,248,383
MIL-C-23929	325	804	824	852	1,005	1,011	993
MIL-C-29118	28,040	31,183	48,274	53,208	58,223	58,132	55,718
MIL-C-29127	908,978	874,128	781,804	850,873	1,055,909	1,078,855	1,080,478
MIL-C-29137	7,878	8,737	8,448	8,955	10,520	10,473	10,387
MIL-C-29147	898,011	470,940	855,924	808,882	887,131	918,731	917,839
MIL-C-29383	230,278	182,212	278,789	320,039	348,350	358,818	374,222
MIL-C-29388	31,843	28,883	38,408	44,438	48,518	48,828	51,948
MIL-C-297	801,838	470,910	878,489	788,591	888,874	878,180	808,594

SPECIFICA- TION NUMBER	SCENARIO A	M+6	M+12	M+18	M+24	M+30	M+36
MIL-C-326	837,372	1,300,486	1,910,185	2,234,390	2,373,212	2,350,592	2,398,753
MIL-C-332	1,128,343	789,762	1,158,228	1,388,407	1,438,218	1,438,405	1,433,077
MIL-C-3395	13,551	10,183	14,848	17,273	17,824	17,759	17,590
MIL-C-342	3,838,575	2,723,058	3,788,859	4,482,828	4,858,530	4,825,328	4,828,289
MIL-C-3453	878	878	878	878	878	878	878
MIL-C-368	809,458	1,789,891	2,845,870	3,062,890	3,249,341	3,287,718	1,827,120
MIL-C-3738	4,138,544	3,180,818	4,838,810	5,358,318	3,728,438	5,780,340	5,741,595
MIL-C-3738	57,208	47,218	67,873	76,828	88,837	88,181	91,926
MIL-C-3780	103,736	74,783	107,844	128,503	133,846	134,077	132,468
MIL-C-3824	2,232,828	1,894,474	2,414,031	2,818,083	3,997,088	2,880,420	2,938,220
MIL-C-3953	1,025	1,025	1,025	1,025	1,025	1,025	1,025
MIL-C-40004	25,238	17,048	24,807	28,842	30,848	30,580	30,440
MIL-C-40038	5,387	3,873	5,704	8,733	7,104	7,088	7,011
MIL-C-41808	41,108	30,807	45,007	52,001	53,713	53,042	52,217
MIL-C-41820	489,958	453,281	823,887	780,275	820,828	812,975	814,386
MIL-C-41831	21,402	18,258	25,488	30,884	33,897	34,700	35,180
MIL-C-4277	131,239	131,239	131,239	131,239	131,239	131,239	131,239

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SCENARIO 8							
SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-C-43122	358,573	175,028	283,832	287,756	313,378	312,207	308,811
MIL-C-43128	388,200	319,070	485,230	542,218	570,221	588,820	588,474
MIL-C-43191	6,318,273	4,483,087	8,435,895	7,552,134	8,004,827	8,015,131	7,975,545
MIL-C-43204	187,308	125,774	183,104	214,101	228,078	225,989	225,343
MIL-C-43234	58,249	41,853	60,121	70,468	74,633	74,719	74,386
MIL-C-43247	109,753	84,007	121,578	142,146	150,119	150,100	149,384
MIL-C-43251	783,288	532,820	808,192	934,888	983,839	948,584	941,880
MIL-C-43256	788,378	557,257	808,491	946,228	997,570	988,354	980,828
MIL-C-43303	2,389,324	2,250,201	2,288,188	3,817,980	4,021,084	4,013,804	3,990,788
MIL-C-43352	6,170	1,655	2,434	2,812	2,908	2,889	2,824
MIL-C-43358	175,107	139,881	188,383	233,850	247,581	247,782	248,432
MIL-C-43375	177,457	134,424	194,874	228,320	241,735	241,837	240,374
MIL-C-43424	23,874	17,888	25,843	30,344	32,020	31,853	31,814
MIL-C-43458	4,097,991	3,328,202	4,623,878	5,444,604	5,861,922	5,838,100	5,820,758
MIL-C-43473	2,438,303	1,809,137	2,584,354	3,022,893	3,205,341	3,212,428	3,187,594
MIL-C-43478	2,288,844	1,788,092	2,477,881	2,828,108	3,154,838	3,185,118	3,186,482
MIL-C-43482	3,089,708	2,082,146	3,108,933	3,632,783	3,788,023	3,781,733	3,740,328

SPECIFICATION NUMBER		SCENARIO A		SCENARIO B		KURT SALMON ASSOCIATES		DATE 01/13/83		PAGE		0	

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SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-C-43843	1,241,741	950,879	1,416,596	1,880,013	1,757,807	1,759,222	1,751,201
MIL-C-43847	21,218	15,787	23,230	28,839	27,723	27,377	48,951
MIL-C-43858	1,850,263	7,324,717	10,738,420	12,407,183	12,920,458	12,838,776	12,755,797
MIL-C-43874	23,040	17,148	25,249	29,172	30,122	28,738	28,274
MIL-C-43882	1,856,573	8,234,787	12,072,602	13,848,728	14,525,814	14,431,752	14,340,718
MIL-C-43898	4,085,171	2,873,256	4,183,833	4,892,117	5,150,428	5,147,815	5,093,546
MIL-C-43920	819,290	431,107	607,920	730,815	807,335	828,492	838,781
MIL-C-43938	337,508	248,116	377,478	438,131	445,241	434,950	428,782
MIL-C-43983	789,784	698,392	1,030,788	1,212,029	1,278,994	1,278,288	1,274,158
MIL-C-43992	3,271,593	707,489	1,085,098	1,283,717	1,278,901	1,250,319	1,232,830
MIL-C-44031	26,595,592	22,581,759	32,702,883	38,386,744	40,807,911	40,841,354	40,482,583
MIL-C-44034	7,842	5,701	8,357	9,858	10,056	9,990	9,927
MIL-C-44043	80,884	105,870	158,990	182,483	190,315	188,757	187,921
MIL-C-44050	931,117	1,050,241	1,583,847	1,818,780	1,893,923	1,877,847	1,869,924
MIL-C-483	271,934	214,405	318,183	364,217	376,326	371,898	365,886
MIL-C-484	2,312,486	1,824,022	2,841,304	3,087,939	3,258,340	3,252,481	3,231,838
MIL-C-5040	4,006,782	3,780,086	4,106,880	4,275,884	4,335,008	4,330,700	4,320,841

SPECIFICATION NUMBER	SCENARIO A	M+6	M+12	M+18	M+24	M+30	M+36
MIL-C-508	1,357,203	1,080,404	1,583,808	1,841,360	1,929,034	1,920,418	1,911,383
MIL-C-51251	250,860	193,968	279,983	329,184	347,572	347,977	348,432
MIL-C-8590	249,188	192,918	282,338	329,889	338,773	338,208	330,180
MIL-C-7020	1,070,408	1,059,302	1,070,403	1,071,043	1,071,307	1,071,341	1,071,281
MIL-C-7040	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030
MIL-C-7219	1,191,729	873,528	1,258,722	1,471,399	1,557,489	1,559,088	1,552,383
MIL-C-7350	8,854,887	8,472,858	7,685,798	8,939,081	8,437,188	9,448,898	9,408,320
MIL-C-7515	2,728,578	2,706,729	2,737,448	2,782,485	2,787,084	2,788,331	2,788,502
MIL-C-8081	408	339	489	588	623	623	623
MIL-C-81393	930	800	1,210	1,399	1,447	1,430	1,428
MIL-C-81814	185,423	108,283	145,784	173,601	188,408	191,271	189,792
MIL-C-82252	34,891	28,924	41,682	49,142	52,539	53,888	58,311
MIL-C-923	2,344,574	3,882,435	5,809,038	8,588,328	7,085,417	7,154,894	7,285,704
MIL-C-83242	80,878	81,816	71,080	84,833	91,852	93,248	92,528
MIL-C-83398	89,828	45,089	81,521	71,079	75,022	75,529	74,178
MIL-C-83429	987,898	814,288	1,197,388	1,383,438	1,428,988	1,411,145	1,389,197
MIL-C-83450	52,899	34,950	48,559	55,452	60,182	61,087	60,825

KURT SALMON ASSOCIATES  
SCENARIO B

SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-C-87052	932,444	3,145,583	4,381,231	5,387,889	5,992,277	6,123,188	6,128,258
MIL-F-21840	5,483,733	5,501,412	8,013,877	9,318,350	9,750,318	9,700,688	9,814,885
MIL-F-43939	157,517	115,494	186,719	185,388	206,841	207,173	206,249
MIL-G-3886	204,970	153,872	225,731	260,810	271,588	289,838	288,134
MIL-H-41802	278,250	880,018	1,301,188	1,508,502	1,553,348	1,528,314	1,508,384
MIL-L-11078	14,880	11,189	16,408	18,858	19,580	19,337	19,038
MIL-L-18040	60,980	501,474	722,339	834,883	910,910	935,662	976,323
MIL-L-1870	37,200	27,898	41,014	47,387	48,950	48,342	47,580
MIL-L-1708	232,427	181,188	265,076	308,274	320,784	320,058	320,088
MIL-L-40081	47,278	34,205	48,370	57,886	61,287	61,357	61,081
MIL-L-40089	1,800	1,533	2,320	2,881	2,778	2,742	2,738
MIL-P-18084	880,884	1,817,268	2,883,788	3,081,334	3,307,800	3,345,038	3,421,592
MIL-R-1670	158,000	131,658	186,898	229,823	238,238	235,477	235,035
MIL-R-17343	1,875,000	487,384	714,533	828,572	859,720	854,148	848,754
MIL-R-24048	8,750,000	1,754,584	2,872,318	2,972,058	3,084,981	3,074,832	3,088,513
MIL-R-30500	4,988,083	1,537,040	2,259,383	2,810,478	2,718,987	2,697,935	2,681,835
MIL-S-3577	388,881	281,813	431,813	488,886	508,738	488,200	481,187

SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-S-43355	388,828	1,228,882	1,888,812	2,188,004	2,218,004	2,180,448	2,184,808
MIL-S-43593	7,028						
MIL-S-8780	28,773	23,304	24,042	28,848	41,128	40,768	40,281
MIL-T-2283	208,883	138,207	184,884	213,237	228,048	228,587	222,538
MIL-T-34848	317,820	222,852	322,737	378,818	400,788	401,088	388,328
MIL-T-40828	300,144	222,837	330,012	382,384	388,110	384,888	382,883
MIL-T-43548	8,070,288,420	7,287,771,240	487,111,714	2,348,842,071	3,148,888,228	3,188,108,887	3,188,810,288
MIL-T-43588	17,823,103	20,358,878	28,883,812	34,872,887	38,334,358	38,238,782	38,041,338
MIL-T-43584	288,808,828	88,341,387	84,878,881	88,088,818	100,118,881	87,802,721	88,411,213
MIL-T-43824	84,888,080	12,437,880	17,848,431	20,748,748	22,181,448	22,348,802	22,308,804
MIL-T-43838	30,478,823	33,828,467	48,883,438	87,848,830	80,438,338	88,838,418	88,880,810
MIL-T-43708	18,783	11,148	18,803	18,828	20,184	18,810	18,884
MIL-T-43718	38,818	28,887	38,811	48,888	48,888	48,873	48,220
MIL-T-5038	8,427,838	4,247,288	8,223,888	7,271,084	7,888,388	7,884,228	7,881,038
MIL-T-8237	80,818	83,888	80,141	108,282	118,878	122,412	124,424
MIL-T-8881	33,088	32,848	33,088	33,181	33,231	33,238	33,221
MIL-T-8134	47,138	47,138	47,138	47,138	47,138	47,138	47,138

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SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36			
MIL-T-8319	85,851,076	76,187,821	110,530,819	126,425,310	133,914,079	132,984,997	131,104,472			
MIL-T-8383	185	135	185	213	228	227	223			
MIL-W-17337	83,801	86,387	83,874	97,144	101,182	100,302	99,894			
MIL-W-27285	879,742	553,348	584,707	602,274	609,350	609,497	608,931			
MIL-W-4088	7,049,193	5,310,714	7,801,753	9,835,808	9,303,938	9,293,988	9,260,791			
MIL-W-43566	291	291	291	291	291	291	291			
MIL-W-43638	2,598,693	1,995,877	2,833,271	3,412,884	3,569,843	3,549,201	3,529,192			
MIL-W-43868	3,340,128	1,998,805	2,891,358	3,391,041	3,890,300	3,893,297	3,877,515			
MIL-W-43885	395,507	300,192	441,048	509,888	530,386	528,890	523,456			
MIL-W-43888	380,497	278,883	403,887	472,701	500,754	501,821	500,588			
MIL-W-5038	4,252	4,252	4,252	4,252	4,252	4,252	4,252			
MIL-W-530	12,824,245	9,890,885	14,423,892	16,803,039	17,823,586	17,551,466	17,432,198			
MIL-W-5825	10,858	10,858	10,858	10,858	10,858	10,858	10,858			
MIL-W-5864	879,499	443,067	643,299	749,279	788,540	783,310	778,481			
MIL-W-5865	768,229	408,127	498,702	549,120	569,059	569,250	567,569			
PPP-T-80	393	393	393	393	393	393	393			
T-C-571	811,340	478,725	703,454	918,918	852,493	848,477	841,350			

SPECIFICATION NUMBER		KURT SALMON ASSOCIATES SCENARIO 8										DATE 01/13/83	PAGE 18
		M+8	M+12	M+16	M+20	M+24	M+28	M+32	M+36	M+40	M+44		
I-R-805	8,072	2,141	3,082	3,963	3,989	3,994	3,994	3,994	3,994	3,994	3,994	3,994	4,188
I-R-816	2,980	159	228	288	289	289	289	289	289	289	289	289	310
I-I-871	1,045,844	788,239	1,105,794	1,281,888	1,359,039	1,355,838	1,355,838	1,355,838	1,355,838	1,355,838	1,355,838	1,355,838	1,349,978
I-T-881	22,843	18,848	25,231	28,188	28,928	28,384	28,384	28,384	28,384	28,384	28,384	28,384	28,071
I-T-911	882,572	846,781	845,673	1,103,087	1,189,831	1,189,312	1,189,312	1,189,312	1,189,312	1,189,312	1,189,312	1,189,312	1,181,088
V-B-871	183,200	187,375	227,154	288,258	282,003	282,331	282,331	282,331	282,331	282,331	282,331	282,331	281,078
V-F-106	154,200	26,086	55,348	83,947	85,282	83,774	83,774	83,774	83,774	83,774	83,774	83,774	82,868
V-L-81	1,419,410	1,063,238	1,534,888	1,789,328	1,905,090	1,906,833	1,906,833	1,906,833	1,906,833	1,906,833	1,906,833	1,906,833	1,887,487
V-T-278	1,850,546,108	1,882,502,808	2,382,782,283	2,782,152,548	2,889,487,906	3,027,083,858	3,027,083,858	3,027,083,858	3,027,083,858	3,027,083,858	3,027,083,858	3,027,083,858	3,028,688,584
V-T-260	38,881,088	38,301,880	82,470,193	81,477,407	85,217,632	85,384,688	85,384,688	85,384,688	85,384,688	85,384,688	85,384,688	85,384,688	85,274,228
V-T-285	1,203,730,782	808,854,088	1,321,087,736	1,548,349,753	1,632,250,888	1,630,605,078	1,630,605,078	1,630,605,078	1,630,605,078	1,630,605,078	1,630,605,078	1,630,605,078	1,622,881,417
V-T-295	478,804,828	388,114,104	887,306,018	882,584,887	701,893,585	703,819,804	703,819,804	703,819,804	703,819,804	703,819,804	703,819,804	703,819,804	700,927,288
V-T-301	10,048,062	38,390,880	83,372,888	81,777,087	85,338,188	85,559,888	85,559,888	85,559,888	85,559,888	85,559,888	85,559,888	85,559,888	85,582,878
V-T-385	82,388,400	40,478,402	58,282,331	86,742,088	72,499,388	73,744,473	73,744,473	73,744,473	73,744,473	73,744,473	73,744,473	73,744,473	73,887,432

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SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+16	M+24	M+30	M+36				
C-F-208	1,073	590	638	673	683	687	688				
C-T-301	11,084	377	419	483	522	532	557				
CC-C-487	804	237	257	282	297	301	311				
CCC-C-41	24,174	13,524	14,070	14,524	14,576	14,474	14,582				
CCC-C-418	3,932,038	2,098,448	2,292,381	2,506,838	2,622,568	2,658,888	2,744,058				
CCC-C-426	284,888	151,710	162,818	175,870	182,782	184,083	189,325				
CCC-C-428	828	14	18	18	19	20	20				
CCC-C-429	1,021,523	559,030	607,484	665,342	697,087	705,859	729,825				
CCC-C-430	2,298,813	1,210,395	1,273,307	1,318,234	1,328,547	1,328,088	1,339,682				
CCC-C-432	38,048	20,223	21,630	22,858	23,024	23,144	23,550				
CCC-C-438	3,776,132	2,138,848	2,381,758	2,678,352	2,846,235	2,898,641	3,018,026				
CCC-C-438	432,999	281,881	281,325	298,840	304,888	308,828	312,243				
CCC-C-440	7,583	4,401	4,784	5,244	5,525	5,589	5,792				
CCC-C-441	821	327	343	347	349	348	353				
CCC-C-445	72,870	45,118	48,032	49,897	50,427	50,800	51,332				
CCC-C-481	799,881	429,201	451,848	470,485	473,800	472,773	477,243				
CCC-C-487	3,821,880	1,588,885	1,739,914	1,919,371	2,020,702	2,048,645	2,122,503				

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SPECIFICATION NUMBER	SCENARIO A	M+6	M+12	M+18	M+24	M+30	M+36	
CCC-C-478	1,888	1,134	1,283	1,474	1,570	1,809	1,880	
DD-I-20	3,788,844	2,381,812	2,887,243	3,768,767	3,674,895	3,903,423	3,887,821	
DD-L-20	87,285,918	40,114,656	43,679,515	47,312,251	49,118,871	49,080,881	51,121,891	
DD-T-88	2,885,408	2,231,997	2,401,881	2,572,445	2,843,270	2,860,188	2,717,732	
JJ-V-155	31,468,829	20,028,370	21,717,858	23,522,105	24,473,835	24,728,449	25,483,881	
KK-L-2004	12,827	8,078	8,750	9,470	9,849	9,948	10,238	
KK-L-271	15,282	8,828	9,308	10,077	10,478	10,582	10,882	
KSA-B-1000	10,482	6,885	7,513	7,940	8,083	8,109	8,238	
KSA-C-1000	135,300	75,888	80,872	83,880	84,580	84,869	86,083	
KSA-C-1100	1,234	208	232	267	288	294	308	
KSA-C-1200	1,044,414	585,585	582,586	588,513	592,211	591,184	598,493	
KSA-C-2000	1,803,507	720,040	800,959	819,428	883,011	1,011,284	1,059,887	
KSA-C-3000	252,274	135,499	140,925	145,518	148,029	148,014	148,895	
KSA-C-4000	81	42	50	58	58	59	61	
KSA-C-5000	1,574	998	1,180	1,327	1,379	1,428	1,479	
KSA-C-8000	182,283	119,023	127,528	138,538	139,132	139,079	143,078	
KSA-C-9000	244,638	181,233	204,888	217,768	223,569	224,902	228,881	

KURT SALMON ASSOCIATES SCENARIO C							DATE 01/12/83	PAGE 18
SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+16	M+24	M+30	M+36	
KSA-K-1000	890	5,482,318	5,914,347	6,308,957	6,849,310	6,715,071	6,910,821	
KSA-K-2000	828,221	383,814	419,888	464,078	487,846	494,043	510,807	
KSA-K-3000	1,668,959	1,039,197	1,128,188	1,218,937	1,264,888	1,277,508	1,314,885	
KSA-K-4000	64,071	36,388	32,376	42,588	44,270	44,706	46,008	
KSA-K-5000	665	356	370	382	383	381	384	
KSA-K-6000	18,021	9,242	9,920	10,893	11,120	11,188	11,814	
KSA-K-7000	358,304	288,488	292,884	321,281	337,590	342,648	354,842	
KSA-K-8000	11,374	6,275	6,784	7,348	7,638	7,713	7,938	
KSA-K-900	1,440	787	887	950	1,001	1,012	1,048	
KSA-N-1000	4,242	2,842	2,842	3,004	3,048	3,088	3,117	
KSA-NM-100	23,470	42,817	44,599	48,147	45,360	45,288	45,852	
KSA-PC-100	28,466	14,859	18,986	19,187	20,744	21,131	22,157	
KSA-R-1000	8,060							
KSA-T-1000	172,884	92,058	108,070	122,805	127,424	131,842	138,704	
KSA-T-2000	587,001	287,718	320,213	338,388	343,281	345,883	350,988	
KSA-T-3000	49,344	9,328	9,272	10,866	11,834	11,750	12,322	
KSA-T-4000	283,188	138,138	153,810	178,028	181,334	184,806	204,398	

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SPEC.: CA- TION NUMBER	SCENARIO A	M+6	M+12	M+18	M+24	M+30	M+36
KSA-W-1000	30,840	5,205	5,795	6,566	7,209	7,344	7,701
KSA-WP-100	5,332	3,580	3,829	4,046	4,105	4,132	4,187
KSA-Y-1000	1,514,817,600	786,739,080	850,886,558	918,748,490	954,108,858	983,189,486	990,702,344
KSA-Y-2000	15,143,226	11,817,319	12,539,498	13,881,831	14,241,347	14,382,937	14,804,184
KSA-Y-3000	86,153	55,848	60,878	65,516	68,103	68,777	70,778
L-S-128	589,520	335,588	385,174	389,095	412,544	423,384	427,749
LPP-DES12-80	28,138	17,213	19,408	22,320	23,839	24,383	25,488
LPP-DES13-80	10,187	6,694	7,545	8,541	9,271	9,474	9,812
LPP-DES18-73	987,173	638,181	821,828	748,774	778,841	788,259	808,298
LPP-DES23-73	474,853	278,011	301,281	328,184	332,194	342,512	352,547
LPP-DES32-78	828,124	403,897	444,214	488,610	513,833	521,511	540,440
LPP-DES8-78	99,732	57,714	63,459	69,801	73,405	74,502	77,208
MIL-B-1687	481,218	253,125	281,843	324,205	350,803	357,147	374,541
MIL-B-1787	170,115	95,795	103,219	112,401	116,888	118,032	121,482
MIL-B-371	14,832,618	15,275,509	16,665,886	18,154,432	18,867,854	19,202,700	19,826,206
MIL-B-41828	7,209,298	4,182,732	4,531,915	4,807,352	5,108,223	5,157,659	5,310,623
MIL-B-533	1,134,195	809,074	880,031	981,773	1,008,753	1,018,297	1,051,534

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SCENARIO C

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SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-B-81213	107,185	52,706	58,930	60,886	62,847	63,775	65,002
MIL-B-87018	47,552	28,551	28,582	27,440	27,537	27,348	27,512
MIL-C-10178	1,108,137	588,753	683,711	773,144	812,102	837,184	870,190
MIL-C-10298	4,512,328	2,717,121	2,834,062	3,159,403	3,272,399	3,301,888	3,392,802
MIL-C-10788	12,485	7,008	7,881	8,373	8,708	8,924	9,082
MIL-C-10859	2,288,920	1,283,758	1,384,888	1,487,801	1,553,240	1,570,848	1,620,429
MIL-C-11085	858,870	540,541	585,853	634,093	659,756	668,453	688,212
MIL-C-12085	1,024,188	588,287	645,317	712,089	750,000	760,844	788,230
MIL-C-12189	2,071,980	1,808,433	2,084,770	2,303,732	2,422,378	2,458,445	2,547,505
MIL-C-12389	515,121	389,084	780,788	881,132	903,152	917,664	934,233
MIL-C-15082	11,878	29,852	34,874	38,453	41,467	42,738	44,432
MIL-C-15085	154,704	487,109	582,863	638,382	674,086	693,345	721,882
MIL-C-16280	330,335	184,448	181,938	198,008	198,713	197,365	198,604
MIL-C-16375	24,839	37,234	41,457	47,680	51,573	52,535	55,084
MIL-C-17155	721,706	438,780	483,149	485,822	491,825	492,884	499,275
MIL-C-17157	1,339,726	849,810	911,445	981,489	1,020,294	1,027,350	1,056,388
MIL-C-1734	2,550	1,791	2,121	2,385	2,478	2,568	2,559

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SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36	
MIL-C-18387	190,551	111,771	121,504	133,176	140,316	141,948	147,104	
MIL-C-19002	825	496	520	526	528	528	534	
MIL-C-19898	2,851	1,808	1,872	1,725	1,732	1,733	1,734	
MIL-C-19759	953,300	536,890	570,461	592,318	598,339	600,044	608,406	
MIL-C-20898	21,882	12,046	13,076	14,260	14,850	15,115	15,624	
MIL-C-21115	4,890,389	2,998,574	3,410,095	3,781,284	3,953,832	4,048,810	4,187,344	
MIL-C-2184	6,534	4,904	5,460	6,281	6,793	6,919	7,258	
MIL-C-21952	264,737	140,315	149,559	158,998	162,650	163,235	166,297	
MIL-C-21881	1,587,321	823,760	935,247	1,020,427	1,048,609	1,074,436	1,104,875	
MIL-C-23826	825	496	520	526	528	528	534	
MIL-C-28116	38,040	24,058	25,989	28,187	28,392	28,853	30,543	
MIL-C-28127	808,878	486,782	506,315	522,451	528,314	523,533	527,875	
MIL-C-28137	7,975	4,397	4,764	5,249	5,819	5,877	5,783	
MIL-C-28147	695,011	394,184	410,084	423,304	424,796	421,843	424,407	
MIL-C-29363	230,278	123,904	148,522	161,551	170,912	176,886	183,208	
MIL-C-29365	31,843	17,245	20,368	22,850	23,730	24,551	25,423	
MIL-C-297	801,838	322,255	389,498	408,808	423,339	434,512	448,311	

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SCENARIO C

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SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-C-328	837,372	841,850	1,048,871	1,187,893	1,227,412	1,248,888	1,285,001
MIL-C-332	1,128,243	811,788	883,033	717,818	748,448	783,750	778,833
MIL-C-338	13,551	7,576	8,310	9,153	9,647	9,784	10,146
MIL-C-342	3,838,878	2,181,458	2,308,080	2,412,010	2,450,178	2,480,893	2,502,722
MIL-C-348	878	878	878	878	878	878	878
MIL-C-358	808,488	1,221,102	1,400,404	1,555,285	1,875,283	1,718,845	1,789,878
MIL-C-373	4,136,844	2,487,677	2,871,434	2,858,428	2,844,484	2,868,044	3,037,481
MIL-C-373	87,208	30,480	38,017	40,424	41,886	43,446	44,983
MIL-C-376	103,736	87,385	82,123	87,218	88,894	70,520	72,858
MIL-C-3824	2,232,928	1,272,818	1,380,838	1,488,854	1,563,295	1,572,497	1,628,441
MIL-C-3853	1,028	1,028	1,028	1,028	1,028	1,028	1,028
MIL-C-40038	8,387	2,878	3,221	3,546	3,732	3,788	3,895
MIL-C-41808	41,108	23,228	25,251	27,878	28,183	28,502	30,574
MIL-C-41820	488,958	317,378	358,812	410,482	438,524	448,831	470,022
MIL-C-41831	21,402	14,288	15,370	16,243	15,477	18,888	18,848
MIL-C-4277	131,238	131,238	131,238	131,238	131,238	131,238	131,238
MIL-C-43122	358,873	135,208	148,487	158,848	168,337	168,841	171,834

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SCENARIO C							
SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-C-43128	388,200	240,015	282,248	286,784	300,089	303,820	313,678
MIL-C-43191	8,318,273	3,440,484	3,718,134	4,015,844	4,171,301	4,209,970	4,330,235
MIL-C-43204	187,308	84,842	103,510	113,005	118,037	119,482	123,301
MIL-C-43234	58,249	31,978	34,824	37,447	38,928	39,311	40,455
MIL-C-43247	109,753	64,120	89,808	75,497	78,834	79,431	81,893
MIL-C-43251	793,288	381,883	428,818	487,353	523,387	533,808	558,129
MIL-C-43258	755,379	424,051	480,878	500,445	521,833	527,431	543,738
MIL-C-43303	2,389,324	1,711,848	1,880,712	2,024,421	2,113,382	2,138,889	2,204,222
MIL-C-43352	8,170	1,258	1,388	1,497	1,577	1,588	1,654
MIL-C-43358	175,107	108,928	114,140	123,573	128,504	129,762	134,557
MIL-C-43375	177,457	102,828	111,442	120,650	125,482	128,880	130,401
MIL-C-43424	23,874	14,014	15,030	16,183	17,825	18,942	17,421
MIL-C-43468	4,087,881	2,660,022	2,828,328	2,939,104	2,978,832	2,988,180	3,038,278
MIL-C-43473	2,438,303	1,403,849	1,515,911	1,634,588	1,697,151	1,714,509	1,783,380
MIL-C-43479	2,269,544	1,383,485	1,491,688	1,588,451	1,598,541	1,607,485	1,637,973
MIL-C-43482	3,069,708	1,539,484	1,695,869	1,802,293	2,020,498	2,051,551	2,133,030
MIL-C-43525	402,334	208,783	228,835	257,597	274,287	278,712	280,162

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SCENARIO C

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SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+16	M+24	M+30	M+36
MIL-C-43594	2,414,496	817,828	873,308	738,881	777,828	787,417	815,888
MIL-C-43600	50,820	33,470	37,738	43,208	48,353	47,372	48,560
MIL-C-43605	883,480	492,217	541,212	595,301	628,032	835,388	858,447
MIL-C-43627	4,735,876	2,722,083	2,872,238	3,259,476	3,419,668	3,482,358	3,580,564
MIL-C-43637	1,105,200	870,381	725,893	785,108	818,118	824,180	848,178
MIL-C-43675	88,049	34,743	38,884	44,489	48,122	49,020	51,408
MIL-C-43678	1,288,882	728,080	785,181	880,351	883,959	882,708	918,704
MIL-C-43701	57,137	31,828	34,441	37,495	38,180	39,803	40,882
MIL-C-43718	1,221,789	1,171,782	1,294,301	1,428,872	1,488,518	1,822,828	1,874,505
MIL-C-43734	12,983	11,058	12,229	12,878	14,489	14,738	18,323
MIL-C-43774	4,843	3,028	3,389	3,888	4,189	4,278	4,478
MIL-C-43781	70,551	37,588	40,042	42,981	44,426	44,818	48,670
MIL-C-43824	18,338	10,878	11,820	12,848	13,837	13,785	14,282
MIL-C-43838	38,045	18,408	17,804	19,871	20,921	20,872	21,587
MIL-C-43842	134,708	115,748	128,512	144,730	154,087	159,817	163,384
MIL-C-43843	1,241,741	752,608	815,081	882,070	917,288	928,420	953,588
MIL-C-43847	21,216	11,888	12,033	14,288	15,052	15,227	15,780

KURT SALMON ASSOCIATES SCENARIO C							DATE	01/13/83	PAGE	25
SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36			
MIL-C-43888	1,880,283	8,433,102	5,873,883	8,571,017	8,910,225	7,013,479	7,288,048			
MIL-C-43874	23,040	12,884	14,138	15,517	18,383	18,857	17,185			
MIL-C-43882	1,856,873	8,108,178	6,718,227	7,387,445	7,788,785	7,884,881	8,171,048			
MIL-C-43908	4,085,171	2,241,578	2,408,238	2,893,719	2,887,284	2,715,533	2,792,832			
MIL-C-43820	818,290	330,285	359,154	380,885	388,831	390,084	398,771			
MIL-C-43838	337,508	177,487	187,823	227,327	245,838	250,428	262,822			
MIL-C-43883	788,784	518,403	589,048	831,845	885,724	874,845	898,872			
MIL-C-43892	3,271,583	510,208	588,084	853,482	705,890	719,882	754,840			
MIL-C-44031	28,595,592	17,274,673	18,721,378	20,288,328	21,075,828	21,283,187	21,808,789			
MIL-C-44034	7,842	4,228	4,849	5,114	5,378	5,458	5,857			
MIL-C-44043	80,884	77,407	85,600	85,731	101,493	103,171	107,258			
MIL-C-44050	931,117	787,791	850,251	982,521	1,010,749	1,027,874	1,089,108			
MIL-C-483	271,934	182,751	175,811	183,854	204,219	208,588	214,072			
MIL-C-484	2,313,208	1,387,834	1,514,881	1,641,975	1,710,882	1,728,330	1,780,844			
MIL-C-5040	4,008,782	3,625,370	3,870,353	3,720,407	3,748,180	3,754,988	3,775,845			
MIL-C-508	1,357,203	805,821	884,080	872,833	1,022,281	1,038,722	1,073,299			
MIL-C-51251	250,860	148,888	181,218	174,370	181,257	183,050	184,378			

SPECIFIC- TION NUMBER	SCENARIO A		KURT SALMON ASSOCIATES SCENARIO C				DATE 01/13/83		PAGE 28	
	M+8	M+12	M+18	M+24	M+30	M+36				
MIL-C-8580	249,188	147,411	159,784	174,241	182,992	184,937			191,331	
MIL-C-7020	1,070,409	1,068,784	1,068,888	1,068,918	1,068,928	1,068,923			1,068,958	
MIL-C-7040	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030			3,821,030	
MIL-C-7218	1,181,728	872,880	727,811	788,897	818,348	824,088			847,898	
MIL-C-7380	8,954,887	4,307,370	4,825,532	4,888,358	8,143,158	9,188,958			8,326,280	
MIL-C-7818	2,728,878	2,889,708	2,894,873	2,888,848	2,702,888	2,703,828			2,708,218	
MIL-C-8081	408	283	277	307	322	327			338	
MIL-C-81383	830	863	838	727	780	787			833	
MIL-C-81814	188,423	88,483	92,383	84,428	84,847	84,482			95,387	
MIL-C-82282	34,881	18,877	22,010	24,742	28,714	26,828			27,887	
MIL-C-823	2,344,874	2,738,887	2,082,332	3,410,481	3,883,884	3,828,848			3,748,128	
MIL-C-83242	80,878	43,188	48,052	48,050	46,284	48,084			48,818	
MIL-C-83388	89,828	37,038	38,838	38,301	38,481	38,413			38,800	
MIL-C-83428	887,888	817,870	871,787	738,388	778,848	784,878			813,384	
MIL-C-83480	82,888	28,278	28,818	30,173	30,308	30,194			30,478	
MIL-C-87052	833,444	2,632,770	2,738,873	2,827,404	2,837,374	2,817,851			2,834,774	
MIL-F-21840	8,483,733	4,182,871	4,848,041	4,880,384	8,178,970	8,238,248			8,410,788	

KURT SALMON ASSOCIATES SCENARIO C							DATE 01/13/83	PAGE 27
SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36	
MIL-F-43538	157,517	89,650	95,895	103,837	107,948	108,017	112,184	
MIL-Q-3886	409,940	228,420	281,158	278,258	280,520	284,880	305,582	
MIL-H-41802	138,823	314,852	348,048	384,730	423,110	430,198	448,302	
MIL-L-11075	14,880	8,471	9,208	10,090	10,830	10,753	11,143	
MIL-L-15040	60,980	322,084	381,813	428,988	445,827	461,837	478,286	
MIL-L-1870	37,200	21,178	23,020	28,228	28,574	28,882	27,857	
MIL-L-1708	232,437	132,200	146,573	161,628	188,738	172,878	178,842	
MIL-L-40051	47,278	28,263	28,435	30,752	31,868	32,282	33,221	
MIL-L-40069	1,800	1,078	1,217	1,325	1,488	1,528	1,598	
MIL-P-15084	820,884	1,237,382	1,421,059	1,598,811	1,878,091	1,724,140	1,780,045	
MIL-R-1870	158,000	83,377	104,808	118,808	128,060	130,741	136,637	
MIL-R-17343	1,875,000	381,523	387,508	437,238	459,808	486,877	483,818	
MIL-R-24048	6,750,000	1,301,483	1,421,033	1,574,050	1,855,307	1,880,037	1,741,017	
MIL-R-30500	4,889,083	1,135,833	1,251,017	1,380,450	1,484,141	1,478,883	1,531,508	
MIL-S-3577	388,651	203,420	228,322	280,044	281,018	286,185	300,023	
MIL-S-43355	199,484	449,503	487,211	563,900	604,443	614,571	641,860	
MIL-S-43983	7,029							

SPECIFICA- TION NUMBER	KURT SALMON ASSOCIATES SCENARIO C							DATE	01/13/83	PAGE	28
	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36				
MIL-S-8790	28,773	17,740	19,285	21,040	22,089	22,338	23,104				
MIL-T-2283	208,883	111,117	118,514	117,903	118,442	118,239	119,899				
MIL-T-34548	317,520	170,472	184,751	200,018	207,995	210,030	218,184				
MIL-T-40825	300,144	182,971	180,285	200,945	212,719	218,257	224,747				
MIL-T-43548	8,070,255,420	5,829,020,917	8,074,754,918	8,535,523,308	8,763,789,183	8,488,585,223	7,004,304,941				
MIL-T-43588	17,475,819	15,034,151	18,380,191	17,873,953	18,882,587	18,907,397	19,520,380				
MIL-T-43594	255,908,928	39,908,714	44,437,589	51,116,830	55,278,347	58,310,783	59,053,119				
MIL-T-43824	54,508,080	9,886,085	10,423,040	11,032,151	11,403,891	11,491,297	11,782,329				
MIL-T-43838	30,478,823	24,802,827	27,197,154	30,408,989	32,237,533	32,787,399	34,083,951				
MIL-T-43709	18,783	7,873	8,863	10,184	10,908	11,139	11,658				
MIL-T-43718	35,619	18,718	20,843	23,978	25,928	28,412	27,898				
MIL-T-5038	5,437,838	3,382,940	3,831,595	3,919,281	4,089,884	4,108,483	4,224,540				
MIL-T-5237	50,618	48,804	52,988	58,391	57,329	57,835	58,853				
MIL-T-5861	33,059	32,743	32,786	32,772	32,776	32,774	32,780				
MIL-T-8134	47,138	47,138	47,138	47,138	47,138	47,138	47,138				
MIL-T-83183	85,951,076	58,885,304	63,485,013	68,638,883	71,875,785	72,308,415	74,593,047				
MIL-T-8363	185	111	117	118	118	118	120				

SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-W-17337	53,801	41,581	45,854	51,092	54,086	54,950	57,091
MIL-W-27285	579,742	536,920	541,413	546,206	548,717	549,371	551,313
MIL-W-4088	7,049,193	4,081,887	4,428,697	4,808,180	5,010,006	5,067,217	5,220,963
MIL-W-43668	291	291	291	291	291	291	291
MIL-W-43638	2,599,693	1,488,462	1,831,184	1,799,032	1,893,307	1,820,006	1,889,112
MIL-W-43688	3,155,603	1,477,147	1,600,847	1,733,100	1,802,224	1,819,867	1,873,182
MIL-W-43685	395,507	222,026	244,463	269,574	283,978	289,238	298,829
MIL-W-43688	360,497	211,209	229,945	219,578	259,885	282,612	270,493
MIL-W-5038	4,252	4,252	4,252	4,252	4,252	4,252	4,252
MIL-W-530	12,824,245	7,472,058	8,142,638	8,899,402	9,320,853	9,432,851	9,748,872
MIL-W-5625	10,858	10,858	10,858	10,858	10,858	10,858	10,858
MIL-W-5684	578,499	335,797	365,738	398,311	418,287	421,327	435,004
MIL-W-5685	489,447	285,255	291,885	299,013	302,771	303,724	308,611
MIL-W-844	2,049,890	2,099,890	2,247,182	2,387,659	2,458,287	2,470,940	2,528,129
PPP-T-60	393	393	393	393	393	393	393
T-C-571	811,340	353,886	388,817	450,244	483,767	480,435	477,823
T-R-805	6,072	1,375	1,628	1,831	1,904	1,971	2,042

KURT SALMON ASSOCIATES SCENARIO C							DATE	01/13/83	PAGE	30
SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36			
T-R-818	3,880	102	121	138	142	147	152			
T-T-871	1,045,844	871,874	823,890	681,899	713,480	722,130	745,818			
T-T-881	22,843	11,871	13,254	15,186	16,374	16,892	17,482			
T-T-811	883,872	488,881	831,054	581,781	808,488	817,227	837,810			
V-S-871	183,200	120,801	130,805	141,475	147,083	148,818	152,840			
V-F-108	184,200	28,024	28,878	33,331	36,045	36,716	38,508			
V-L-81	1,418,410	817,300	884,358	958,198	983,888	1,003,576	1,032,728			
V-T-276	1,823,441,828	1,285,901,028	1,424,217,820	1,547,431,188	1,600,915,618	1,627,755,214	1,674,817,953			
V-T-280	38,881,088	27,573,488	29,894,812	32,503,564	33,781,438	34,155,048	35,159,383			
V-T-285	1,208,240,184	898,808,828	788,788,814	827,815,728	884,388,785	874,004,811	901,508,598			
V-T-295	478,804,825	310,937,180	334,880,001	359,838,388	372,346,010	375,881,032	385,882,849			
V-T-301	10,046,052	24,858,441	25,216,178	31,888,282	33,872,048	34,748,424	36,181,848			
V-T-385	82,366,400	32,180,185	34,289,311	35,815,722	38,987,844	38,087,447	38,615,434			

KURT SALMON ASSOCIATES SCENARIO D										DATE 01/12/83	PAGE 31
SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36				
C-F-208	1,073	808	1,483	2,057	2,831	3,204	3,778				
C-Y-301	11,084	581	918	1,288	1,823	1,878	2,332				
CCC-C-41	24,174	21,155	34,815	47,878	61,237	74,588	87,888				
CCC-C-418	3,748,178	3,180,056	5,168,880	7,183,064	8,139,587	11,128,070	13,112,870				
CCC-C-428	284,868	230,503	378,082	521,884	667,244	812,823	958,404				
CCC-C-428	528	20	33	45	58	71	84				
CCC-C-428	1,207,028	884,937	1,558,053	2,181,187	2,784,284	3,387,401	3,970,517				
CCC-C-430	1,130,885	892,839	1,488,738	2,020,838	2,584,833	3,148,431	3,712,328				
CCC-C-432	38,048	30,862	50,388	88,847	88,338	108,831	128,323				
CCC-C-438	3,778,122	3,187,870	5,217,280	7,238,831	8,258,413	11,275,893	13,285,573				
CCC-C-438	67,848	58,918	87,784	138,807	173,452	211,288	249,138				
CCC-C-440	7,583	6,584	10,788	14,923	18,088	23,283	27,417				
CCC-C-441	821	488	808	1,121	1,434	1,747	2,058				
CCC-C-448	72,870	88,010	112,588	158,180	198,788	243,381	288,838				
CCC-C-481	873	705	1,180	1,588	2,040	2,488	2,930				
CCC-C-487	2,948,040	2,483,888	4,020,043	5,578,190	7,132,337	8,688,480	10,244,628				
CCC-C-478	1,988	1,682	2,744	3,808	4,888	5,930	6,882				

URT SALMON ASSOCIATES  
SCENARIO 6

SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
DDO-L-20	48,856,411	80,348,080	82,132,183	113,826,878	145,720,159	177,512,555	208,318,451
DDO-T-86	914,719	806,849	1,314,806	1,823,783	2,332,722	2,841,678	3,350,634
JJ-W-188	31,404,996	30,238,941	48,332,958	88,430,978	97,527,990	108,825,005	125,722,023
KK-L-2004	12,827	12,231	19,955	27,879	35,405	43,130	50,854
KK-L-271	15,282	13,000	21,211	28,422	37,632	45,843	54,054
KSA-B-1000	10,482	10,785	17,585	24,384	31,183	37,982	44,781
KSA-C-1000	135,300	118,772	188,892	262,011	335,130	408,249	481,389
KSA-C-1100	1,234	310	508	701	897	1,083	1,289
KSA-C-1200	1,044,414	840,455	1,371,289	1,902,083	2,432,887	2,963,711	3,494,525
KSA-C-2000	1,442,928	998,724	1,828,235	2,255,745	2,885,255	3,514,788	4,144,278
KSA-C-4000	81	88	111	155	198	241	284
KSA-C-5000	1,834	1,488	2,395	3,322	4,249	5,176	6,103
KSA-K-1000	890	8,271,985	13,488,397	18,720,808	23,945,220	29,169,632	34,384,043
KSA-K-2000	628,221	580,822	947,858	1,314,491	1,681,325	2,045,150	2,414,925
KSA-K-3000	1,888,889	1,573,736	2,567,677	3,561,617	4,555,557	5,549,498	6,543,438
KSA-K-4000	64,671	55,078	89,861	124,628	159,431	194,218	229,001
KSA-K-5000	18,021	14,027	22,886	31,746	40,605	49,464	58,324

SPECIFICATION NUMBER	SCENARIO A	M+6	M+12	M+16	M+24	M+30	M+36
KSA-K-7000	658,304	388,856	350,765	802,874	1,154,883	1,406,492	1,658,401
KSA-K-8000	11,374	9,502	15,504	21,505	27,507	33,508	39,510
KSA-K-900	1,440	1,185	1,848	2,704	3,488	4,213	4,987
KSA-N-1000	4,242	4,072	6,843	9,215	11,787	14,358	16,930
KSA-NW-100	23,470	84,312	104,830	145,548	186,187	226,785	267,403
KSA-PC-100	159	150	244	339	434	528	623
KSA-T-3000	48,344	12,387	20,227	28,057	35,886	43,716	51,546
KSA-T-4000	263,168	205,843	335,522	425,402	595,281	725,161	855,040
KSA-V-1000	30,840	7,748	12,842	17,535	22,428	27,322	32,215
KSA-WP-100	5,332	5,486	8,851	12,416	17,881	19,346	22,811
KSA-Y-2000	15,143,228	17,842,785	28,787,038	39,944,273	51,091,519	62,238,752	73,385,991
KSA-Y-3000	89,153	44,724	135,234	191,743	248,252	295,763	352,273
L-S-125	589,524	504,755	823,545	1,142,339	1,461,139	1,779,931	2,098,715
LPP-DES12-80	28,136	25,573	41,724	57,375	74,027	90,178	105,328
LPP-DES13-80	10,164	9,845	16,228	22,507	28,788	35,069	41,350
LPP-DES15-73	987,173	955,987	1,575,050	2,125,135	2,795,220	3,405,303	4,015,387
LPP-DES23-73	474,853	420,806	686,579	952,350	1,215,123	1,483,884	1,749,637

SPECIFICA- TION NUMBER	KURT SALMON ASSOCIATES SCENARIO D					DATE	01/12/83	PAGE	34
	SCENARIO A	M+6	M+12	M+18	M+24				
LPP-DES32-75	698,124	604,078	985,598	1,387,120	1,748,842	2,130,183			2,511,695
LPP-DES8-78	99,732	88,287	140,800	195,303	249,808	304,308			358,812
MIL-B-17757	170,115	144,884	236,570	328,145	419,720	511,286			602,871
MIL-B-371	14,572,881	22,923,838	37,401,551	51,578,574	68,357,590	80,835,908			95,313,831
MIL-B-41828	7,209,298	8,328,983	10,328,067	14,323,259	18,320,448	22,317,635			26,314,825
MIL-B-593	1,120,402	1,027,712	1,876,793	2,325,874	2,974,956	3,624,037			4,273,118
MIL-B-81813	107,185	80,015	130,551	181,088	231,625	282,181			332,898
MIL-B-87019	47,552	38,957	85,208	90,491	115,693	140,935			186,177
MIL-C-10298	4,512,328	4,114,517	6,713,160	9,311,802	11,910,448	14,509,088			17,107,730
MIL-C-10788	12,488	10,570	17,248	23,922	30,597	37,273			43,948
MIL-C-10858	2,268,920	1,893,228	3,088,953	4,284,675	5,480,400	6,676,122			7,871,844
MIL-C-11085	958,670	817,902	1,334,472	1,851,042	2,387,611	2,884,181			3,400,750
MIL-C-12095	1,024,188	882,899	1,440,193	1,997,688	2,555,182	3,112,677			3,670,189
MIL-C-12189	3,088,303	2,848,451	4,644,210	6,441,889	8,238,728	10,037,488			11,835,245
MIL-C-12359	515,121	1,032,848	1,985,337	3,337,728	2,880,112	3,642,501			4,294,889
MIL-C-15032	3,998	2,140	5,123	7,108	9,089	11,071			13,054
MIL-C-15085	51,552	40,827	88,122	91,718	117,314	142,810			188,508

SPECIFICATION NUMBER		KURT SALMON ASSOCIATES SCENARIO D					DATE 01/13/83	PAGE 35
SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36		
MIL-C-16280	330,335	288,204	470,227	652,251	834,275	1,018,298	1,198,322	
MIL-C-16376	138	7	11	18	20	25	28	
MIL-C-17155	721,706	678,283	1,103,410	1,530,538	1,957,662	2,384,787	2,811,918	
MIL-C-17157	1,339,726	1,290,428	2,105,432	2,920,439	3,735,445	4,550,451	5,365,457	
MIL-C-1734	2,580	2,638	4,304	5,970	7,636	9,303	10,969	
MIL-C-18387	190,551	187,484	273,283	379,043	484,822	590,601	696,381	
MIL-C-18002	825	750	1,224	1,898	2,172	2,646	3,120	
MIL-C-18899	2,851	2,514	4,102	5,690	7,278	8,866	10,454	
MIL-C-18759	953,300	822,157	1,341,415	1,860,672	2,378,929	2,899,185	3,419,443	
MIL-C-20696	21,662	18,123	28,559	41,015	53,461	63,807	75,353	
MIL-C-21115	227,379	175,645	291,474	404,302	517,131	629,959	742,788	
MIL-C-2184	8,584	7,301	11,811	16,522	21,133	25,744	30,355	
MIL-C-21852	85,121	68,048	107,759	149,473	191,185	232,898	274,612	
MIL-C-23926	825	750	1,224	1,898	2,172	2,646	3,120	
MIL-C-28115	37,888	38,374	59,348	82,321	105,294	128,267	151,240	
MIL-C-29127	25,972	24,510	39,990	55,470	70,950	86,430	101,910	
MIL-C-29137	7,975	6,683	10,905	15,125	19,347	23,568	27,789	

KURT SALMON ASSOCIATES SCENARIO D							DATE	01/13/83	PAGE	36
SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36			
MIL-C-29147	698,011	818,540	1,008,834	1,395,328	1,784,722	2,174,116	2,563,510			
MIL-C-297	288,404	234,458	382,838	530,818	678,894	826,772	874,851			
MIL-C-326	47,933	41,048	66,973	92,888	118,823	144,748	170,674			
MIL-C-332	1,129,343	928,031	1,510,892	2,095,755	2,680,617	3,265,479	3,850,341			
MIL-C-338	13,551	11,338	18,500	25,862	32,823	39,884	47,145			
MIL-C-342	3,832,575	3,301,103	5,388,010	7,470,917	9,555,828	11,640,731	13,725,638			
MIL-C-3453	876	876	876	876	876	876	876			
MIL-C-368	128,308	100,918	184,850	228,388	292,121	355,857	419,592			
MIL-C-3735	4,138,544	3,789,835	6,183,038	8,576,541	10,969,998	13,363,448	15,758,901			
MIL-C-3760	103,738	86,882	141,722	188,582	231,441	289,301	381,181			
MIL-C-3924	2,232,928	1,024,076	3,139,287	4,354,494	5,569,703	6,784,911	8,000,119			
MIL-C-3953	1,025	1,025	1,025	1,025	1,025	1,025	1,025			
MIL-C-40039	5,397	4,528	7,388	10,248	13,107	15,967	18,827			
MIL-C-41808	41,106	34,806	58,788	78,772	100,755	122,738	144,721			
MIL-C-41820	458,087	443,911	734,278	1,004,641	1,285,005	1,565,370	1,845,735			
MIL-C-41831	21,402	22,022	35,831	49,840	63,749	77,658	91,567			
MIL-C-4277	131,239	131,239	131,239	131,239	131,239	131,239	131,239			

SPECIFICATION NUMBER	KURT SALMON ASSOCIATES SCENARIO D						DATE 01/13/83	PAGE 37
	SCENARIO A	M+8	M+12	M+18	M+24	M+30		
MIL-C-43122	358,573	208,540	338,985	487,431	597,878	728,323		658,769
MIL-C-43128	388,200	381,397	589,850	817,901	1,046,182	1,274,403		1,502,655
MIL-C-43181	8,316,273	5,215,854	8,510,077	11,804,301	15,098,525	18,382,749		21,686,973
MIL-C-43204	187,308	143,120	233,511	323,902	414,294	504,684		595,074
MIL-C-43234	58,249	48,427	79,013	109,599	140,185	170,770		201,358
MIL-C-43247	108,763	98,900	158,100	219,259	280,498	341,898		402,897
MIL-C-43251	725,349	515,013	840,285	1,185,558	1,490,827	1,818,099		2,141,371
MIL-C-43258	755,378	640,248	1,044,915	1,448,981	1,853,346	2,257,712		2,682,081
MIL-C-43303	2,389,324	2,584,034	4,216,056	5,848,078	7,480,088	9,112,120		10,744,142
MIL-C-43352	8,170	1,882	3,071	4,280	5,449	6,638		7,827
MIL-C-43358	175,107	161,808	280,089	380,788	481,448	582,127		687,419
MIL-C-43375	177,457	155,644	253,946	352,247	450,548	548,850		647,152
MIL-C-43424	23,874	21,279	34,719	48,159	61,598	75,038		88,478
MIL-C-43488	4,097,991	4,055,807	6,817,043	9,178,478	11,739,915	14,301,350		16,862,788
MIL-C-43473	2,438,303	2,129,118	3,473,824	4,818,530	6,183,238	7,507,942		8,852,649
MIL-C-43479	2,001,830	1,895,811	3,093,185	4,280,519	5,487,873	6,685,227		7,882,581
MIL-C-43482	2,802,480	1,932,503	3,153,032	4,373,559	5,594,089	6,814,618		8,035,145

SPECIFICATION NUMBER	KURT SALMON ASSOCIATES SCENARIO D					DATE 01/13/83			PAGE 38	
	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36			
MIL-C-43828	388,877	283,719	463,028	642,259	821,494	1,000,730	1,179,985			
MIL-C-43894	172,194	372,108	607,124	842,140	1,077,158	1,312,170	1,547,186			
MIL-C-43800	50,820	48,725	81,130	112,538	143,941	178,346	208,751			
MIL-C-43808	883,480	738,986	1,200,822	1,888,857	2,130,491	2,595,326	3,080,180			
MIL-C-43827	4,733,830	4,098,218	8,883,303	9,270,380	11,857,475	14,444,859	17,031,845			
MIL-C-43837	1,108,200	1,018,184	1,858,388	2,297,545	2,938,720	3,578,885	4,221,071			
MIL-C-43878	1,288,882	1,089,494	1,783,810	2,488,327	3,182,745	3,877,181	4,571,578			
MIL-C-43701	87,137	47,889	77,775	107,883	137,888	168,085	198,202			
MIL-C-43718	488,880	408,731	888,808	927,284	1,188,081	1,444,838	1,703,616			
MIL-C-43734	12,883	18,873	27,040	37,807	47,874	58,441	68,908			
MIL-C-43774	4,843	4,488	7,338	10,180	13,022	15,863	18,703			
MIL-C-43781	70,881	87,812	84,324	130,837	167,350	203,862	240,375			
MIL-C-43824	18,238	18,307	28,808	38,806	47,203	57,503	67,802			
MIL-C-43836	24,488	13,417	21,881	30,365	38,840	47,313	55,787			
MIL-C-43842	134,708	173,101	282,428	381,753	501,080	610,406	719,732			
MIL-C-43843	1,230,178	1,128,599	1,843,031	2,558,482	3,269,893	3,983,324	4,696,756			
MIL-C-43847	21,218	17,865	28,311	40,887	52,003	63,348	74,888			

SPECIFICATION NUMBER		KURT SALMON ASSOCIATES SCENARIO D							DATE 01/13/83	PAGE 39
SCENARIO A		M+8	M+12	M+18	M+24	M+30	M+36			
MIL-C-43858	1,850,283	8,123,835	13,284,878	18,388,821	23,818,384	28,847,207	33,778,080			
MIL-C-43874	23,040	19,488	31,763	44,058	56,384	68,650	80,948			
MIL-C-43892	1,858,573	9,133,280	14,901,833	20,870,008	26,438,383	32,208,757	37,975,132			
MIL-C-43908	4,085,171	3,402,118	5,550,823	7,688,828	9,848,238	11,988,841	14,148,847			
MIL-C-43920	871	828	1,380	1,873	2,387	2,918	3,442			
MIL-C-43983	711,312	714,448	1,185,878	1,818,805	2,088,134	2,518,383	2,970,893			
MIL-C-44031	28,888,582	28,147,418	42,881,574	58,178,732	78,888,880	92,204,048	108,718,208			
MIL-C-44034	7,842	8,323	10,318	14,308	18,303	22,286	26,288			
MIL-C-44043	80,884	118,010	188,280	282,548	335,818	408,088	482,358			
MIL-C-44050	831,117	1,148,878	1,878,281	2,802,582	3,328,884	4,058,187	4,781,489			
MIL-C-482	271,834	243,808	387,984	582,001	708,048	880,086	1,014,143			
MIL-C-484	2,312,488	2,112,551	3,448,782	4,781,036	6,118,277	7,448,520	8,783,782			
MIL-C-5040	4,008,782	3,895,143	4,400,182	4,908,818	5,411,187	5,918,487	6,421,835			
MIL-C-508	1,287,184	1,310,884	1,878,187	2,738,748	3,804,328	4,288,808	5,033,481			
MIL-C-51251	250,880	225,471	387,874	510,277	652,680	795,083	937,486			
MIL-C-5590	248,189	221,348	381,142	500,840	640,737	780,533	920,330			
MIL-C-7020	1,070,408	1,070,038	1,072,405	1,074,775	1,077,144	1,079,514	1,081,883			

SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-C-7040	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030
MIL-C-7218	1,181,728	1,010,083	1,837,318	2,264,585	2,891,818	3,518,085	4,148,317
MIL-C-7350	8,854,887	8,271,216	9,824,883	13,878,180	17,231,817	20,885,012	24,538,548
MIL-C-7818	3,728,878	2,713,920	3,780,082	2,808,284	3,882,438	2,898,808	2,844,781
MIL-C-8081	408	383	828	887	1,108	1,350	1,592
MIL-C-81393	830	838	1,384	1,882	2,421	2,848	3,477
MIL-C-81814	188,423	138,218	222,247	308,278	384,309	480,338	588,371
MIL-C-823	483,687	412,847	873,288	833,884	1,194,802	1,455,122	1,718,740
MIL-C-83242	80,878	68,428	108,284	150,338	182,288	234,248	278,208
MIL-C-83388	89,828	58,030	81,418	128,808	182,183	187,881	232,888
MIL-C-83428	887,888	928,887	1,810,837	2,088,877	2,880,817	3,288,387	3,880,187
MIL-C-83480	82,888	43,828	71,014	88,804	128,883	183,483	180,872
MIL-F-21840	8,482,882	8,284,887	10,288,882	14,243,808	18,218,448	22,183,388	28,170,313
MIL-F-43838	187,817	134,248	218,032	303,818	388,808	473,381	558,178
MIL-Q-3888	408,840	341,848	887,280	772,874	888,888	1,204,400	1,420,114
MIL-H-41802	138,828	470,431	787,848	1,084,880	1,381,778	1,688,888	1,988,002
MIL-L-11078	14,880	12,888	20,712	28,730	38,747	44,788	52,783

SPECIFIC- TION NUMBER		KURT SALMON ASSOCIATES SCENARIO D					DATE 01/13/83		PAGE 41	
SCENARIO A		M+6	M+12	M+18	M+24	M+30	M+36			
MIL-L-1870	37,200	31,738	51,780	71,824	91,868	111,912	131,957			
MIL-L-1709	441,526	371,724	606,500	788,288	1,076,048	1,310,821	1,545,594			
MIL-L-40081	47,278	39,773	64,893	90,012	115,132	140,252	165,372			
MIL-L-40089	1,900	1,604	2,617	3,829	4,842	5,855	6,868			
MIL-P-15084	322,272	270,553	441,429	612,306	783,181	954,058	1,124,934			
MIL-R-1870	159,000	135,945	226,899	314,454	402,205	489,963	577,717			
MIL-R-17343	1,875,000	540,588	881,878	1,223,380	1,564,801	1,906,212	2,247,624			
MIL-R-24049	9,750,000	1,846,044	3,175,124	4,404,204	5,633,284	6,862,365	8,091,445			
MIL-R-30500	4,989,083	1,897,252	2,789,201	3,841,150	4,912,098	5,983,046	7,054,098			
MIL-S-43355	199,484	672,045	1,096,494	1,520,943	1,945,392	2,369,841	2,794,291			
MIL-S-6790	26,773	26,659	43,498	60,338	77,173	94,012	110,849			
MIL-I-2283	209,883	188,091	274,254	380,417	486,579	592,742	698,905			
MIL-I-34548	317,520	259,031	420,998	583,965	746,931	909,898	1,072,865			
MIL-I-40828	342,284	270,438	441,237	612,042	783,843	953,642	1,124,444			
MIL-I-43548	8,346,309,232	9,712,883,851	952,606,228	5,192,324,767	9,432,043,304	3,671,781,850	7,301,745,711			
MIL-I-43558	17,348,085	22,621,580	36,808,897	51,196,208	65,483,521	79,770,833	94,056,151			
MIL-T-43824	49,875,320	8,881,555	14,490,959	20,100,382	25,709,785	31,319,188	36,928,571			

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SPECIFICATION NUMBER	SCENARIO A	M+0	M+12	M+18	M+24	M+30	M+36
MIL-T-43838	30,478,623	36,877,123	60,187,938	83,458,781	108,749,585	130,040,378	153,331,192
MIL-T-43708	18,783	11,700	19,080	28,478	33,839	41,280	48,849
MIL-T-5038	5,437,838	5,009,240	8,073,481	11,137,717	14,201,957	17,268,197	20,330,433
MIL-T-8881	33,059	32,987	33,442	33,897	34,352	34,807	35,262
MIL-T-8134	47,138	47,138	47,138	47,138	47,138	47,138	47,138
MIL-T-83193	95,951,078	28,737,703	144,782,863	200,827,433	258,872,239	312,917,183	388,982,028
MIL-T-8383	185	188	274	360	487	593	699
MIL-W-17337	53,801	62,310	101,564	141,318	180,371	219,724	259,080
MIL-W-27205	579,742	584,853	618,782	658,731	720,870	772,809	824,548
MIL-W-4088	7,048,183	6,011,785	9,828,412	13,238,059	18,852,703	20,468,348	24,079,997
MIL-W-43568	281	281	281	291	291	291	281
MIL-W-43838	2,599,893	2,231,774	3,841,315	6,050,858	8,480,402	7,889,840	2,279,484
MIL-W-43888	3,155,603	2,235,883	3,847,987	5,080,112	6,472,238	7,884,382	9,298,488
MIL-W-43885	398,507	331,888	541,489	751,071	980,673	1,170,274	1,379,874
MIL-W-43888	380,497	319,137	520,697	722,258	923,818	1,125,378	1,328,938
MIL-W-5038	4,252	4,252	4,252	4,252	4,252	4,252	4,252
MIL-W-530	12,884,445	11,297,395	16,432,892	25,557,788	32,702,993	39,838,178	48,873,376

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SPECIFICA- TION NUMBER	SCENARIO A	K+8	M+12	M+18	M+24	M+30	M+36	
SCENARIO D								
MIL-W-5625	10,858	10,858	10,858	10,858	10,858	10,858	10,858	
MIL-W-5684	579,498	505,580	824,883	1,144,183	1,483,466	1,782,788	2,102,088	
MIL-W-5885	489,447	325,783	401,224	478,888	552,147	627,608	703,088	
MIL-W-844	3,049,890	3,198,838	5,215,408	7,234,272	9,253,139	11,272,008	13,290,872	
PPP-T-80	393	393	393	393	393	393	393	
I-C-571	811,340	530,415	665,416	1,200,414	1,535,414	1,870,414	2,205,412	
I-R-805	9,072	2,028	3,308	4,585	5,864	7,144	8,424	
I-R-818	3,880	151	248	341	438	531	627	
I-T-871	1,220,304	872,677	1,588,887	2,201,317	2,815,642	3,429,883	4,044,288	
I-T-881	22,643	17,871	28,832	39,893	51,154	62,317	73,478	
I-T-911	1,023,838	820,531	1,328,782	1,658,892	2,375,222	2,893,454	3,411,883	
V-B-871	182,200	182,938	288,478	414,013	529,552	645,091	760,628	
V-F-108	154,200	38,741	63,208	87,677	112,145	136,612	161,080	
V-L-81	1,419,410	1,237,918	2,019,758	2,801,800	3,583,441	4,365,283	5,147,124	
V-T-155	52,424	44,717	72,858	101,201	128,443	157,685	188,927	
V-T-278	1,118,873,244	1,282,747,090	2,060,271,572	2,857,788,053	3,655,320,538	4,452,845,012	5,250,388,495	
V-T-280	34,253,984	37,548,221	61,259,630	84,973,033	108,888,438	132,389,542	158,113,248	

KURT SALMON ASSOCIATES

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SCENARIO D

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V-T-285	1,201,803,882	1,042,218,853	1,700,457,123	2,358,888,598	3,010,940,088	3,675,181,528	4,333,422,898
V-T-288	481,305,713	435,858,282	700,527,585	885,388,930	1,230,270,267	1,495,141,598	1,780,012,932
V-T-301	3,308,780	2,845,908	4,843,328	8,440,742	8,238,186	10,035,875	11,832,881

APPENDIX H. STUDY END-ITEM QUANTITIES DEMANDED BY SCENARIO

SPECIFICATION NUMBER	FILE NAME	SCENARIO A	M:8	M:12	M:18	M:24	M:30	M:36	REC NO.
DDO-L-20	GBV4	635352	535375	799213	929744	701228	935574	911241	
	B1851F	415,524	318,114	482,274	538,080	558,871	555,381	551,834	880
	B2115AB	4,200	3,740	5,988	6,438	6,780	6,787	6,883	887
	B3108Q	878,812	497,808	720,831	848,831	898,211	895,534	892,021	876
	B3108Q	878,812	497,808	720,831	848,831	898,211	895,534	892,021	4388
	B3789D	7,500	8,521	12,898	14,802	15,428	15,241	15,222	718
	B43280F	44,328	32,580	47,000	55,088	58,348	58,414	58,154	851
	B43388A	82,392	100,543	148,515	173,774	181,252	179,788	178,973	731
	B43828A	433,032	31,301	45,181	52,958	58,088	58,153	58,904	751
	B44053	86,858	100,543	148,515	173,774	181,252	179,788	178,973	781
	B8289J	709,824	518,798	781,825	887,870	932,823	928,454	928,381	809
	B83209A	144,024	68,885	147,223	173,843	182,879	181,821	180,218	828
	C14810E	48,212	38,390	53,542	61,660	65,098	64,563	64,214	18
	C18472F	270,600	188,644	282,488	310,840	337,700	343,584	344,223	38
	C17814E	6,012	5,838	5,345	4,973	7,311	7,470	7,478	44
	C17884C	7,308	5,131	7,184	8,617	8,828	8,781	8,880	61
	C17889D	2,888	2,033	2,881	3,481	3,816	3,908	3,959	78
	C1811Q	11,112	8,892	12,637	15,757	18,088	18,714	18,490	95
	C21055E	6,818	7,883	11,470	13,254	14,484	14,887	15,603	112
	C21181C	73,808	60,994	87,888	101,522	110,784	113,804	118,760	148
	C21709D	9,732	8,412	8,832	10,811	12,018	12,283	12,280	157
	C2181J	3,284	3,177	4,343	5,325	6,840	6,817	6,822	177
	C2202F	814,812	401,589	577,126	678,705	718,480	718,607	712,690	202
	C28138	72,384	57,923	80,482	98,780	108,990	109,525	110,987	215
	C28388A	787,588	1,737,588	2,372,288	2,740,800	2,883,225	2,813,038	2,851,880	227
	C28373A	6,812	5,733	8,258	9,543	10,414	10,897	11,162	244
	C28380A	38,000	29,880	43,011	49,701	54,240	59,714	62,138	288
	C28381	300	833	728	888	887	1,018	1,020	378
	C3771E	80,880	501,474	732,338	834,883	810,810	838,882	878,323	308
	C38488A	680	483	689	781	804	785	785	332
	C40131B	31,300	27,511	40,831	48,848	48,715	48,258	47,878	388
	C40143E	88,382	42,553	68,284	78,408	78,881	78,202	74,132	383
	C41833B	68,158	61,693	83,378	107,889	111,708	110,342	110,208	417
	C43188F	57,388	48,128	67,703	81,755	88,548	88,510	88,212	440
	C43388C	198,818	304,627	381,984	381,984	389,314	381,010	348,018	458
	C43418B	471,780	344,117	527,783	608,787	622,833	608,145	588,492	482
	C43438E	748,558	888,508	848,408	888,585	1,054,447	1,088,878	1,080,872	812
	C43507A	1,383	65	100	118	118	118	114	858
	C43544	382,782	288,738	418,788	488,488	517,352	517,321	515,821	880
	C43546A	480,800	343,674	488,045	581,402	618,784	618,487	613,748	4401
	C43742B	488,828	353,682	510,453	588,288	634,405	634,405	631,873	828
	C43827B	517,524	388,282	573,918	673,107	712,658	713,247	710,118	4181
	C43830A	24,204	17,588	25,788	28,803	31,038	30,838	30,840	4212
	C43972A	81,680	14,434	22,136	25,578	28,113	28,508	25,148	4227
	C44001	222,000	171,852	247,773	290,410	307,888	307,944	308,577	4288
	C44030	288,082	217,671	333,880	388,728	383,784	384,882	378,208	4278
	C44048	3,800,000	3,227,882	4,874,282	5,482,148	5,804,188	5,808,953	5,783,404	4308
	C82188A	81,858	81,439	74,094	85,618	93,437	89,978	100,147	4323
	C83141A	183,308	137,416	202,070	233,488	241,185	238,144	234,440	4351
	C83185	188,938	128,768	178,778	203,083	214,348	218,787	211,838	840
	C87071	281,488	214,545	289,588	380,330	398,317	407,751	413,168	871

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SPECIFICA-  
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REC  
NO.

D00-L-20

D00828E	31,356	20,973	30,113	36,032	38,801	39,030	38,883	2722
D05281K	427,044	278,078	382,100	452,508	481,605	500,170	501,107	3747
D07651K	2,050,266	1,618,341	2,337,287	2,735,431	2,801,382	2,804,718	2,881,710	3782
DES1074	72,884	57,820	63,735	68,207	103,877	104,084	103,807	4020
DES1180	8,000	3,815	8,925	8,846	7,088	7,002	8,953	3558
DES1278	155,484	155,615	228,740	283,594	271,488	272,720	270,388	4127
DES1278	5,808	5,433	8,223	8,501	9,837	9,717	9,705	4082
DES1378	3,000	2,578	3,903	4,510	4,670	4,613	4,607	4138
DES1473	61,850	45,538	65,552	77,348	81,888	81,554	81,552	4104
DES1478	6,808	5,433	8,223	9,501	9,837	9,717	9,705	4182
DES1480	5,808	5,433	8,223	9,501	9,837	9,717	9,705	3878
DES1500	5,808	1,087	1,576	1,825	1,892	2,048	2,133	4074
DES1873	147,720	125,455	181,885	213,087	225,806	225,782	224,788	3821
DES2073	121,958	103,837	150,059	176,029	188,372	188,527	185,708	3999
DES2573	48,782	35,961	52,060	61,081	64,688	64,722	64,436	4044
DES3073	7,880	8,254	13,567	15,878	16,324	16,218	16,118	3888
DES4071	78,308	58,139	81,301	95,353	100,955	101,039	100,598	4117
DES6798	189,484	157,488	227,315	286,420	282,172	282,483	281,336	3933
DES979	3,000	2,578	3,903	4,510	4,670	4,613	4,607	4158
D19390K	553,404	439,301	634,310	744,782	785,908	784,283	775,950	891
D2325D	852	456	667	771	802	787	792	805
D40099F	1,455,876	1,128,388	1,563,109	1,851,141	2,011,089	2,046,128	2,049,984	925
D432818	495,000	401,891	590,018	694,437	736,224	735,895	735,450	942
D43733C	3,788,544	3,076,381	4,400,286	5,204,280	5,511,674	5,515,321	5,493,881	957
F12224F	1,171,898	878,142	1,288,972	1,488,184	1,550,780	1,540,709	1,530,978	988
F188308	516	558	803	928	1,013	1,040	1,088	986
F438328	48,456	33,287	48,176	58,504	58,524	58,574	58,611	1013
F438338	186,804	135,982	188,931	230,967	244,538	244,741	243,267	1052
G17602D	582,358	411,928	594,352	696,858	738,070	738,227	735,632	1092
G21833C	5,544	3,516	4,842	5,827	6,567	6,734	6,738	1104
G3868E	88,488	78,138	118,777	134,924	137,742	134,558	132,844	1113
G41817C	103,056	89,812	100,477	117,789	124,727	124,885	124,287	1123
G437558	73,554	48,382	70,068	82,350	88,581	86,843	85,723	1130
G811888	186,982	142,521	205,709	241,109	255,362	255,653	254,503	1143
G835F	1,105,140							
H12225F	2,882	2,046	2,853	3,481	3,686	3,670	3,654	1167
H17024E	3,516	2,314	3,187	3,901	4,335	4,432	4,434	1185
H194488	9,372							
H3897C	2,640	1,877	2,751	3,178	3,310	3,289	3,288	1212
H41802D	1,142,748	805,847	1,183,108	1,383,238	1,443,878	1,445,571	1,439,154	1258
H43577C	3,900	2,745	3,927	4,595	4,867	4,879	4,847	1271
H43588A	1,788	1,103	1,628	1,885	1,845	1,824	1,898	1291
H43879	3,652	5,871						
H87041	1,187,842	749,382	1,043,755	1,283,600	1,427,559	1,458,747	1,460,193	1311
I43748A	8,000	2,148	3,156	3,846	3,788	3,716	3,682	1328
I43903	240	133	192	226	238	238	235	1343
J4U513D	5,719,020	4,838,133	6,983,180	8,184,948	8,988,507	8,978,478	8,839,698	1351
J21708E	121,128	81,174	111,781	136,832	152,078	155,458	155,550	1354
J43923A	6,708	5,315	8,152	9,418	9,615	9,393	9,259	1382
J43924B	5,388	4,252	6,521	7,535	7,892	7,814	7,408	1421

SPECIFICATION NUMBER	FILE NAME	SCENARIO A	M+8	M+12	M+16	M+24	M+30	M+36	REC NO.
DDO-L-20	J43882A	55.356	40.356	61.898	71.818	73.012	71.224	70.310	1459
	J43990	50.804	36.894	56.586	65.378	65.745	65.302	64.274	1481
	J44020	48.278	38.230	54.018	62.412	63.718	62.243	61.357	1481
	J82293B	148.172	124.786	174.207	208.832	231.623	237.108	240.286	1803
	J82298B	14.258	8.835	12.132	18.078	17.887	18.284	18.278	1523
	J83312B	28.688	18.364	25.188	36.888	32.854	33.048	32.783	1853
	J83388B	27.840	17.842	24.488	28.142	31.627	32.108	31.880	1853
	J87035A	225.818	144.888	201.802	248.178	278.008	282.038	282.318	1827
	J87037A	178.200	1,082.857	1,807.808	1,884.288	2,042.252	2,107.308	2,108.384	1838
	KP148E	7.020	3.893	5.207	6.188	6.832	6.707	6.898	1787
	LPP182	10.478	7.460	10.804	12.872	13.416	13.427	13.388	1828
	L41800F	188.484	614.298	928.408	1,077.502	1,108.534	1,030.224	1,077.403	1863
	L43335C	110.520	87.334	128.084	147.787	159.488	158.878	158.883	1843
	L43466C	148.588	103.371	148.202	174.572	185.211	185.424	184.588	1702
	L43486C	148.588	103.371	148.202	174.572	185.211	185.424	184.588	1720
	L43488B	137.884	102.043	148.801	172.848	178.832	177.703	177.703	1738
	L43536D	501.758	382.287	522.888	612.830	648.057	648.802	648.888	1753
	L43672B	8.084	4.858	6.888	7.572	8.348	8.342	8.337	1771
	M11189F	40.620	28.188	42.128	49.378	52.288	52.388	52.128	1787
	M2418F	7.058	4.852	7.172	8.411	8.908	8.813	8.874	1810
	M43284B	48.088	35.210	51.884	61.310	64.834	64.258	63.733	1828
	M4384B	71.028	51.350	78.282	88.880	80.578	88.981	89.423	1840
	M808D	114.744	85.888	128.082	144.108	150.492	148.802	148.853	1881
	M810G	188.072	118.831	188.228	187.170	208.828	208.088	208.131	1887
	M834J	28.438	28.748	38.803	45.248	47.922	47.677	47.762	1824
	M29387A	28.832	18.580	28.833	31.451	33.311	33.350	33.202	1880
	M41804C	8.237.088	4.222.044	6.073.276	7.028.880	7.642.388	7.830.220	8.128.183	1873
	M43741	2.880	2.101	3.080	3.870	3.887	3.841	3.844	1968
	Q22776C	138.228	100.880	138.178	184.828	178.088	182.188	182.528	2000
	Q2414F	88.888	84.835	80.038	110.712	123.128	125.818	125.843	2017
	Q82250C	2.484	1.584	2.178	2.813	2.854	2.871	2.823	2088
	P10808E	13.884	9.880	14.278	16.830	17.838	17.808	17.788	2113
	P21833C	424	268	347	432	462	460	467	2110
	P43486C	231.828	168.954	240.868	282.448	298.138	298.473	298.133	2102
	P43907A	883.828	388.423	577.358	678.282	715.883	713.782	708.188	2222
	P8278J	80.312	71.020	104.424	120.680	124.628	123.072	121.187	2281
	P82277C	170.378	118.817	181.878	191.482	207.883	211.804	212.001	2288
	P43323D	3.240	2.401	3.521	4.080	4.214	4.181	4.097	2312
	P83250C	82.788	63.327	88.428	108.380	117.874	120.388	121.858	2328
	S10858G	348.580	284.045	388.877	428.788	458.174	458.888	453.882	2344
	S10928F	184.248	108.208	188.182	188.488	188.383	188.848	188.881	2383
	S12848G	3,787.044	2,888.883	3,883.412	4,318.018	4,877.884	4,884.703	4,883.783	2373
	S1688F	4.920	3.808	5.223	6.181	6.387	6.347	6.312	2482
	S17888B	4.784	4.028	5.803	6.708	7.318	7.518	7.843	2384
	S18884C	233.788	183.888	278.378	323.830	382.313	381.888	377.813	2383
	S21087E	13.728	11.287	16.402	18.883	20.683	21.248	21.188	2404
	S28897A	11.412	20.788	28.812	38.888	38.844	40.408	40.448	2421
	S28145A	288.880	183.883	288.888	331.880	388.738	378.750	377.184	2438
	S28384B	18.888	13.807	19.888	22.882	25.080	25.781	26.882	2448
	S28388A	9.818	8.138	11.722	13.548	14.782	15.184	15.844	2488

SPECIFICATION NUMBER	FILE NAME	SCENARIO A	M+0	M+12	M+18	M+24	M+30	M+36	REC NO.
DDO-L-20	S3728D	189,588	142,388	208,788	241,207	251,184	248,856	247,880	3827
	S40128E	63,720	12,920	18,488	21,338	23,287	23,920	24,338	2883
	S405F	430,784	384,818	828,818	816,388	852,838	853,888	850,888	2188
	S43013C	4,178	3,078	4,528	5,231	5,403	5,338	5,283	2510
	S43128B	328	208	308	353	388	380	359	2628
	S43357C	84,358	74,808	108,337	127,058	134,818	134,828	134,034	2538
	S43488B	84	58	88	102	104	102	101	2557
	S43502A	3,552	2,814	4,318	4,888	5,080	4,972	4,801	2872
	S43805C	184,178	133,887	188,887	218,128	223,708	218,534	218,128	2583
	S43828B	3,698	2,838	4,807	5,208	5,317	5,194	5,120	2898
	S43828	117,780	84,832	122,853	144,088	152,954	152,878	152,008	2812
	S43828A	283,838	188,142	288,878	318,188	334,740	335,014	333,541	2821
	S43835B	800,828	484,472	672,812	787,888	834,888	838,038	834,280	2341
	S43928B	382,058	1,582,808	2,280,883	2,648,888	2,758,884	2,738,812	2,721,237	2887
	S4388B	88,872	48,818	74,883	88,148	87,848	85,818	84,883	2708
	S4388B	98,124	71,537	109,718	129,768	129,418	128,428	124,828	2720
	S44041	1,454,028	314,440	482,288	587,207	588,845	555,897	547,791	2741
	S48J	4,731,120	4,872,141	7,087,232	8,338,335	8,880,840	8,802,760	8,885,048	2783
	S87018	311,832	202,382	281,417	333,710	382,447	388,722	388,487	2780
	S87027	182,832	128,798	182,844	211,050	230,324	238,583	249,883	2789
	T10058F	880	734	848	878	878	888	851	2783
	T10035H	7,032	5,838	8,483	9,778	10,139	10,028	10,004	2819
	T10188H	84	59	88	101	107	108	105	2858
	T1110E	800	450	653	787	808	808	787	2878
	T1111E	1,128	884	1,238	1,480	1,535	1,537	1,530	2907
	T12384D	708	528	774	894	931	928	918	2948
	T14038H	288	214	318	388	377	372	368	3008
	T1712N	9,080	8,827	10,032	11,788	12,487	12,487	12,413	3083
	T1870H	200,788	151,808	218,197	287,387	271,888	271,017	268,148	3098
	T1828F	2,852	1,578	2,804	3,355	3,485	3,422	3,388	3128
	T21704D	3,080	2,188	3,028	3,708	4,121	4,213	4,218	3148
	T21705D	8,084	3,851	8,028	8,155	8,841	8,893	8,997	3172
	T2838B	318,212	284,838	381,482	440,813	421,071	484,143	518,617	3188
	T41810F	8,052	3,421	8,817	8,480	8,712	8,838	8,843	3228
	T41812F	388	38	60	89	71	89	88	3271
	T41813D	3,800	3,088	4,841	5,382	5,552	5,484	5,477	3307
	T41834F	81,212	33,778	39,738	45,144	48,831	51,060	50,737	3347
	T43217F	902,832	833,910	881,408	1,042,888	1,129,305	1,148,823	1,147,133	3381
	T43482B	1,488	1,118	1,841	1,885	1,888	1,834	1,804	3387
	T43487B	507,480	271,942	382,808	480,042	487,240	487,801	485,822	3448
	T43854B	33,350	25,873	37,345	43,772	48,358	48,410	48,200	3488
	T43884	50,544	38,837	56,488	65,277	68,840	65,100	64,174	3483
	T44047	3,777,372	3,209,883	4,848,370	5,481,747	5,771,988	5,778,738	5,781,330	3484
	T8284K	80,858	38,857	58,844	68,878	67,838	68,892	68,880	3515
	T82182A	284	248	387	412	450	462	482	3578
	T83385	1,118	787	1,085	1,284	1,405	1,428	1,414	3593
	T87020	28,704	19,802	22,984	28,288	31,438	32,122	32,184	3618
	T87038A	238,458	124,843	201,482	277,768	275,843	281,883	281,842	3628
	T87087	238,772	181,838	211,818	280,248	288,433	288,788	288,048	3644
	U17811F	854,384	489,278	681,721	778,880	818,874	818,188	808,488	3688
DDO-L-20	U43282B	508,080	451,377	688,883	784,138	830,881	830,288	828,898	3878
	VP358D	281,880	177,077	258,583	289,538	317,271	317,837	318,218	3878
	V43707B	2,040	1,883	2,487	2,842	3,117	3,118	3,113	3880
DDO-L-20	**TOTAL	85,985,778	54,801,012	79,001,018	82,834,841	88,833,888	88,849,381	88,858,488	

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SCENARIO C

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SPECIFICA- TION NUMBER	FILE NAME	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36	REC NO.
DD-L-20	C43783C	3,788,544	2,381,812	2,557,248	2,765,767	2,874,895	2,903,423	2,987,921	981
DD-L-20	++TOTAL	3,788,544	2,381,812	2,557,248	2,765,767	2,874,895	2,903,423	2,987,921	
DDD-L-20	B1951F	415,524	237,213	280,429	255,987	300,591	335,031	315,983	862
	B21154B	4,200	2,558	2,828	3,332	3,538	3,832	3,788	871
	B3108Q	878,512	380,802	412,898	448,798	484,820	489,188	482,913	883
	B3108Q	878,512	380,802	412,898	448,798	484,820	489,188	482,913	4392
	B3758D	7,500	8,000	8,785	7,745	8,303	8,492	8,684	721
	B43280F	44,328	24,994	27,083	28,271	30,427	30,728	31,822	899
	B43280A	52,392	73,721	81,524	91,172	98,860	98,258	102,151	738
	B43826A	433,032	24,028	28,018	28,138	28,250	28,539	30,389	754
	B44053	88,558	73,721	81,524	91,172	98,860	98,258	102,151	777
	B829J	709,824	388,594	424,403	488,288	492,379	489,437	517,118	818
	B83268A	144,024	78,322	81,830	80,958	85,635	88,553	86,788	830
	B844L	635,352	437,477	488,183	497,429	511,722	514,717	528,708	2
	C14810E	49,212	28,495	30,581	32,809	34,209	34,448	35,420	24
	C18472F	270,600	151,372	181,148	187,331	189,180	189,737	172,185	38
	C17814E	8,012	3,212	3,342	3,448	3,482	3,438	3,458	52
	C17884C	7,308	4,018	4,320	4,585	4,830	4,881	4,735	85
	C17889D	2,868	1,577	1,700	1,789	1,825	1,838	1,865	83
	C1911G	11,112	8,412	7,140	8,213	8,882	9,047	9,488	99
	C21085E	9,588	5,114	6,058	6,811	7,078	7,330	7,585	131
	C21181C	13,808	39,178	48,415	52,175	54,228	58,148	58,175	163
	C21709D	9,732	5,407	6,822	8,824	8,800	8,783	8,832	183
	C2181J	3,284	2,418	2,818	2,830	2,941	2,970	3,057	188
	C2202F	514,812	310,043	334,798	380,178	373,427	378,783	387,289	207
	C2813B	72,384	45,088	48,507	51,260	52,011	52,363	53,180	219
	C28368A	787,588	1,428,744	1,498,811	1,515,013	1,522,142	1,519,745	1,538,851	232
	C28373A	8,912	3,882	4,383	4,804	5,087	5,278	5,480	251
	C28380A	38,000	19,179	22,723	25,543	28,547	27,488	28,480	288
	C28381	300	438	458	470	472	469	472	291
	C3771E	80,860	322,094	381,813	428,968	445,837	481,637	478,298	320
	C38488A	880	397	416	421	423	422	427	344
	C40131B	31,200	20,324	22,392	24,803	26,205	28,609	27,830	373
	C40143E	58,392	30,887	34,189	38,304	42,505	43,298	45,407	400
	C41833B	68,158	43,439	48,978	58,073	60,158	61,480	64,320	425
	C43199F	57,388	38,841	39,914	43,208	44,923	45,385	48,992	445
	C43388C	143,234	143,234	159,485	183,458	188,383	203,057	211,938	477
	C43419B	471,780	248,182	278,318	317,848	343,728	350,144	387,197	501
	C43455E	745,598	451,898	489,197	529,083	549,972	555,411	571,573	528
	C43507A	1,383	47	52	60	65	68	70	587
	C43544	393,782	221,828	239,888	259,591	269,865	272,541	280,485	602
	C43549A	480,600	283,847	285,878	308,971	321,171	324,348	333,784	4411
	C43742B	485,828	271,518	283,884	317,852	330,508	333,773	343,485	834
	C43827B	517,524	303,147	328,539	355,885	369,872	373,492	384,435	4188
	C43830A	24,204	13,051	14,350	15,598	16,847	18,847	17,459	4217
	C43972A	61,680	10,408	11,580	13,333	14,418	14,867	15,403	4240
	C44001	222,000	131,781	142,871	154,310	160,404	161,931	188,708	4270
	C44030	289,052	158,975	174,784	201,055	217,425	221,484	232,270	4288

SPECIFICA- TION NUMBER	FILE NAME	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36	REC NO.
DDD-L-20	C44048	3,800,000	2,488,885	2,678,773	2,890,883	3,012,472	3,041,847	3,131,015	4312
	C82188A	81,956	33,038	39,144	44,002	45,731	47,353	48,061	4339
	C83141A	183,308	104,288	113,372	124,287	130,832	132,458	137,268	4363
	C83195	196,938	105,826	110,985	112,288	112,802	112,808	113,898	881
	C87071	251,488	187,908	180,808	180,888	193,821	194,919	197,888	877
	DC82JE	31,358	16,708	17,788	18,107	18,718	18,828	20,288	3728
	DD5281K	427,044	220,344	234,578	243,878	248,288	247,100	250,688	3752
	DDT51K	2,050,288	1,242,197	1,348,073	1,455,840	1,513,340	1,528,308	1,572,787	3768
	DES1074	72,884	44,230	47,834	51,885	53,885	54,483	58,080	4012
	DES1180	5,000	2,768	3,108	3,558	3,817	3,901	4,081	3888
	DES1278	198,484	118,428	128,918	138,603	148,810	149,007	154,411	4124
	DES1278	5,808	3,825	4,313	4,838	5,288	5,414	5,684	4087
	DES1378	3,000	1,818	2,047	2,344	2,518	2,570	2,689	4135
	DES1473	81,880	34,835	37,752	40,873	42,505	42,921	44,179	4088
	DES1478	5,808	3,825	4,313	4,838	5,288	5,414	5,684	4172
	DES1480	5,308	3,825	4,313	4,838	5,288	5,414	5,684	3972
	DES1580	5,808	704	834	938	975	1,048	1,048	4085
	DES1673	147,720	85,870	104,007	112,800	117,082	114,237	121,701	3825
	DES2073	121,868	79,278	85,818	93,018	96,728	97,875	100,538	3993
	DES2573	48,782	27,511	29,814	32,277	33,585	33,883	34,888	4037
	DES3073	7,880	6,884	7,548	8,302	8,731	8,861	9,183	3888
	DES4071	76,308	42,844	46,841	50,387	52,388	52,908	54,459	4111
	DES8798	198,484	120,808	130,911	141,589	147,177	148,833	152,958	3841
	DES878	3,000	1,818	2,047	2,344	2,518	2,570	2,689	4150
	D1E380K	553,404	343,888	388,913	397,284	412,985	418,821	427,677	897
	D2E25D	552	337	371	408	429	436	451	914
	D4009F	1,458,878	801,387	959,622	985,848	1,007,393	1,010,848	1,028,433	931
	D432618	495,000	301,672	330,188	364,880	382,918	387,983	401,121	947
	F12224F	1,171,898	852,114	717,025	788,888	829,382	841,790	872,345	974
	F188808	518	358	424	477	488	513	532	898
	F438328	45,488	25,448	27,578	28,868	31,049	31,353	32,272	1028
	F438328	186,804	104,021	112,734	122,048	128,917	128,159	131,914	1085
	G17802D	562,358	316,249	342,417	370,335	384,557	388,783	400,078	1086
	G21803C	5,544	2,984	3,082	3,180	3,183	3,178	3,187	1108
	G3888E	88,498	54,808	61,138	70,327	78,053	77,473	81,248	1118
	G41817C	103,058	53,458	57,874	62,588	65,060	65,700	67,611	1127
	G437558	79,584	37,738	40,508	43,682	45,408	45,713	47,014	1133
	G811888	198,992	109,429	118,477	128,134	133,193	134,808	138,421	1147
	G835F	1,105,140	652,113	718,477	788,888	829,382	841,790	872,345	974
	H12226F	2,892	1,570	1,700	1,838	1,912	1,931	1,987	1158
	H12225F	2,892	1,570	1,700	1,838	1,912	1,931	1,987	1173
	H17024E	3,518	1,851	2,028	2,082	2,101	2,080	2,104	1184
	H194488	9,372	4,888	5,138	5,488	5,838	5,988	6,238	1217
	H3897C	2,640	1,382	1,531	1,684	1,771	1,787	1,892	1250
	H41802D	1,142,748	818,828	889,838	924,482	953,068	980,518	1,018,851	1282
	H43577C	3,900	2,132	2,284	2,448	2,528	2,547	2,613	1278
	H43595A	1,788	834	808	1,000	1,058	1,068	1,108	1298
	H43878	3,852	4,288	4,888	5,488	6,088	6,688	7,288	1318
	H87041	1,187,648	627,213	652,814	679,582	675,957	671,288	675,337	1334
	I43748A	8,000	1,829	1,771	1,841	2,045	2,088	2,144	1346

KURT SALMON ASSOCIATES  
SCENARIO C

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SPECIFICATION NUMBER	FILE NAME	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36	REC NO.
DDO-L-20	I43903	240	103	111	120	125	125	125	129 1353
	J40513D		3,714,312	4,021,882	4,349,841	4,521,438	4,568,152	4,699,053	3778
	J21708E	121,128	88,453	71,173	73,420	73,734	73,334	73,833	1368
	J43923A	6,708	3,833	4,266	4,909	5,309	5,408	5,672	1395
	J43924B	5,388	3,089	3,414	3,927	4,247	4,327	4,537	1434
	J43982A	85,358	28,105	32,407	37,278	40,313	41,088	43,086	1470
	J43990	80,804	26,807	28,825	34,078	36,853	37,541	38,388	1488
	J44020	48,278	25,399	28,831	32,831	35,180	37,982	37,982	1497
	J82293B	146,172	97,844	105,025	110,888	113,588	113,342	118,125	1509
	J82299B	14,258	8,040	8,380	8,824	8,881	8,814	8,872	1533
	J83382B	28,888	15,295	15,987	16,321	16,393	16,487	16,487	1564
	J83388B	27,840	14,860	15,813	15,858	15,827	15,888	16,018	1568
	J87035A	225,818	121,287	128,188	130,232	130,891	129,783	130,571	1633
	J87037A	178,200	908,072	942,822	973,058	978,487	988,899	975,892	1644
	KP148E	7,020	2,919	3,120	3,282	3,348	3,383	3,427	3788
	LPP182	10,478	5,707	6,185	6,898	6,983	7,031	7,237	3880
	L41800F	199,484	449,503	497,211	563,900	504,443	614,571	641,880	1689
	L41800F	199,484	449,503	497,211	563,900	504,443	614,571	641,880	1681
	L43335C	110,520	67,038	72,889	78,511	81,812	82,419	84,818	1690
	L43488C	148,888	79,359	85,927	92,934	98,804	97,580	100,398	1728
	L43488C	148,888	79,359	85,927	92,934	98,804	97,580	100,398	1708
	L43498B	137,884	76,892	83,228	91,544	98,270	97,708	101,254	1744
	L43538D	801,758	278,108	301,123	328,681	338,848	341,895	351,847	1789
	L43672B	6,084	3,418	3,742	4,134	4,340	4,388	4,547	1778
	M11199F	40,824	22,410	24,284	26,242	27,278	27,847	28,349	1793
	M2418F	7,058	3,788	4,108	4,458	4,622	4,687	4,804	1815
	M42294B	48,088	27,088	29,288	32,258	33,927	34,280	35,408	1830
	M4394B	71,028	38,088	41,881	46,088	48,444	48,188	50,853	1850
	M809D	114,744	63,908	70,159	77,041	80,957	82,189	85,118	1885
	M810G	158,072	89,478	96,883	104,784	108,822	109,888	113,200	1907
	M834J	28,438	20,834	22,233	24,045	24,995	25,242	25,978	1933
	M29387A	28,932	14,289	15,451	16,711	17,271	17,543	18,054	1987
	M41804C	8,237,088	2,775,509	3,248,822	3,828,878	3,787,816	3,889,478	4,025,158	1977
	N43741	2,880	1,595	1,733	1,900	2,002	2,025	2,099	1988
	O22778C	128,228	80,258	88,444	88,758	89,897	90,005	91,204	2004
	O2414F	98,688	54,088	58,280	58,097	58,302	57,897	58,249	2034
	O82250C	2,484	1,310	1,484	1,390	1,398	1,394	1,411	2088
	P10809E	13,884	7,648	8,280	8,854	9,308	9,400	9,672	2118
	P21593C	12,444	252	287	328	348	358	373	2135
	P43498C	231,828	128,185	138,775	150,101	158,038	157,580	182,170	2183
	P43907A	583,928	310,911	333,708	359,888	374,048	378,588	387,281	2231
	P8278J	80,372	53,903	58,595	64,220	67,661	66,448	70,933	2268
	P82277C	170,378	93,225	99,253	103,104	104,188	104,555	106,088	2301
	R43233D	3,240	1,522	1,681	2,171	2,288	2,314	2,399	2318
	R82280C	62,788	49,565	53,312	56,339	57,151	57,534	58,438	2335
	S10858G	348,580	195,038	211,175	228,395	237,418	239,783	246,741	2350
	S10928F	154,248	83,539	90,835	98,015	101,925	102,922	109,937	2387
	S12549G	3,787,044	1,988,848	2,127,218	2,288,864	2,385,274	2,407,886	2,478,758	2397
	S1698F	4,920	2,652	2,928	3,248	3,427	3,483	3,618	2378
	S17888B	4,784	2,587	3,088	3,448	3,581	3,708	3,842	2387

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SPECIFICATION NUMBER		FILE NAME	SCENARIO A	M:8	M:12	M:18	M:24	M:30	M:36	REC NO.
SCENARIO C										
000-L-20	S19884C		233,798	124,576	147,598	185,912	172,432	178,547	184,990	2308
	S21087E		13,728	7,314	8,868	9,740	10,123	10,482	10,860	2412
	S28987A		11,412	17,374	18,078	18,658	18,724	18,854	18,707	2428
	S29149A		285,680	182,007	188,543	173,584	174,598	174,438	174,239	2439
	S29384B		8,858	8,868	10,507	11,811	12,375	12,710	13,189	2459
	S29388A		8,818	5,237	5,183	6,561	7,335	7,491	7,762	2478
	S3725D		189,588	105,626	118,140	127,747	134,342	136,349	141,298	2483
	S40128E		83,720	8,234	9,758	10,888	11,397	11,802	12,227	2491
	S405F		430,784	275,732	302,581	327,578	340,517	343,885	353,894	2503
	S43013C		4,176	2,337	2,840	2,934	2,988	3,078	3,078	2514
	S43178B		338	158	171	188	198	200	208	2534
	S43357C		84,358	57,222	82,018	87,141	89,820	70,504	72,570	2545
	S43488B		84	42	48	53	58	59	62	2585
	S43502A		3,652	2,028	2,259	2,599	2,811	2,883	3,003	2578
	S43505C		154,176	89,178	89,283	114,217	123,517	125,823	131,951	2586
	S43526B		3,698	2,119	2,380	2,715	2,938	2,980	3,138	2802
	S43828A		117,780	64,895	70,329	78,140	79,177	79,982	82,294	2815
	S43835B		262,538	142,380	184,317	187,070	173,737	175,437	180,578	2826
	S43835B		600,828	352,018	383,242	418,983	432,808	437,887	450,822	2848
	S43926B		382,058	1,159,082	1,274,448	1,401,317	1,474,181	1,496,209	1,550,518	2879
	S43985		88,672	38,058	38,037	44,804	48,560	48,467	51,878	2714
	S43998		88,124	51,589	57,442	68,078	71,456	72,780	76,335	2728
	S44041		1,484,028	228,780	252,488	290,437	314,084	319,947	335,529	2747
	S48U		4,731,120	3,732,888	4,045,788	4,388,980	4,580,828	4,826,470	4,782,126	2755
	S87018		311,832	180,801	171,347	178,079	179,938	180,487	183,077	2785
	S87027		182,832	81,442	98,481	108,465	112,727	118,725	120,937	2773
	T10035F		660	378	412	451	475	481	498	2795
	T10035H		7,032	4,021	4,505	5,103	5,451	5,881	5,805	2634
T10168H		84	48	50	54	58	58	58	2884	
T1110E		600	351	377	407	423	428	438	2887	
T1111E		1,128	853	708	788	797	805	828	2921	
T12354D		708	392	431	474	498	505	524	2983	
T14038H		288	162	177	194	205	207	218	3021	
T1712N		9,080	5,299	5,743	6,217	6,465	6,529	6,720	3076	
T1870H		200,798	118,860	127,481	137,280	142,707	142,694	147,758	3108	
T1928F		2,652	1,488	1,829	1,788	1,881	1,803	1,973	3133	
T21704D		3,080	1,895	1,928	1,988	1,998	1,987	2,000	3158	
T21705D		5,084	3,079	3,201	3,202	3,318	3,298	3,320	3181	
T2936B		318,212	170,105	201,538	228,547	238,450	243,800	252,598	3211	
T41810F		8,052	2,687	3,145	3,451	3,635	3,880	3,814	3243	
T41812F		388	28	31	38	39	40	42	3283	
T41813D		3,600	2,158	2,434	2,787	2,990	3,058	3,197	3321	
T41834F		81,212	31,228	32,243	32,991	33,428	33,842	34,358	3358	
T43217F		802,532	504,475	537,535	580,835	568,388	570,547	579,692	3365	
T43482B		1,488	847	921	1,008	1,053	1,075	1,114	3415	
T43487B		507,480	208,778	228,052	244,488	284,140	286,854	284,123	3453	
T43554B		33,350	19,887	21,508	23,281	24,180	24,418	25,128	3472	
T43984		50,844	28,585	28,578	34,035	38,785	37,482	38,307	3488	
T44047		3,777,372	2,455,293	2,680,824	2,880,828	2,985,768	3,028,078	3,113,721	3500	
T6284K		50,558	28,337	31,892	34,957	38,832	37,261	38,615	3527	

SPECIFICATION NUMBER		KURT SALMON ASSOCIATES SCENARIO C		DATE 01/14/83		PAGE 57		
FILE NAME	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36	REC NO.
D00-L-20	T82182A	284	188	212	220	228	238	3884
	T83385	1,116	882	897	700	898	703	3601
	T87020	36,704	14,812	14,833	14,888	14,781	14,871	3818
	T87038A	228,488	125,848	130,013	130,471	128,984	130,381	3838
	T87067	228,772	127,189	132,298	137,048	138,08	138,822	3858
	U17311F	854,384	388,816	414,327	430,810	433,780	448,087	3888
	U43282B	808,080	388,488	408,780	428,823	438,180	480,083	3880
	VP3580	281,880	138,947	188,188	188,488	187,121	171,884	3822
	V43707B	2,040	1,288	1,834	1,811	1,833	1,888	3888
D00-L-20	**TOTAL	87,288,919	40,114,858	47,312,281	48,118,871	48,880,881	51,121,881	

KURT SALMON ASSOCIATES  
SCENARIO D

SPECIFICATION NUMBER	FILE NAME	SCENARIO A	M+6	M+12	M+18	M+24	M+30
DDD-L-20	B1851F	415,524	355,034	575,267	803,439	1,037,731	1,281,984
	B1184B	4,200	3,787	6,175	8,572	10,964	13,358
	B3108Q	578,512	576,391	940,428	1,304,485	1,668,501	2,032,538
	B3108Q	578,512	576,391	940,428	1,304,485	1,668,501	2,032,538
	B3759D	7,800	7,814	14,644	20,173	25,803	31,433
	B43290F	44,328	37,849	61,754	85,658	109,583	133,468
	B43388A	52,392	110,488	180,288	250,047	319,827	389,608
	B43828A	433,032	38,385	59,384	82,344	105,324	128,303
	B44053	88,558	110,488	180,288	250,047	319,827	389,608
	B828J	709,824	581,724	948,129	1,318,534	1,683,939	2,051,344
	B844L	835,352	385,848	1,086,843	1,507,140	1,927,737	2,348,334
	C14810E	49,212	43,289	70,597	97,925	125,253	152,581
	C18472F	270,800	231,544	377,783	524,022	670,280	818,499
	C17864C	7,308	6,160	10,058	14,008	17,916	21,828
	C17890D	2,588	2,430	3,884	5,499	7,034	8,588
	C1911Q	11,112	9,548	15,878	21,604	27,632	33,661
	C21709D	9,732	8,454	13,794	19,133	24,473	29,813
	C2181J	3,284	3,658	5,888	8,280	10,681	12,902
	C2202F	514,812	489,483	785,899	1,082,514	1,358,030	1,655,648
	C29138	72,384	89,484	113,389	157,253	201,138	245,023
	C29388A	787,589	2,158,125	3,821,151	4,884,177	6,247,203	7,810,228
	C38488A	660	600	1,358	1,738	2,117	2,497
	C40131B	31,200	30,388	49,577	68,768	87,959	107,150
	C41833F	89,158	84,534	105,293	146,051	188,809	227,588
	C43189F	87,388	53,788	50,992	126,214	161,437	196,658
	C43455E	748,586	684,212	1,116,346	1,548,478	1,980,613	2,412,747
	C43507A	1,383	70	114	158	203	247
	C4354A	393,782	335,613	547,579	755,548	971,512	1,183,478
	C43549A	480,600	389,888	681,924	804,282	1,158,639	1,408,997
	C43742B	485,628	411,184	670,850	930,578	1,190,270	1,449,985
	C43827B	517,524	454,851	748,651	1,038,452	1,328,283	1,618,053
	C43830A	24,204	18,514	31,839	44,184	58,489	72,814
	C43972A	61,680	18,498	28,284	38,071	48,858	59,645
	C44001	222,000	186,832	328,662	481,573	677,583	753,513
	C44030	259,082	233,685	381,278	528,880	678,456	824,048
	C44048	3,800,000	3,737,111	6,097,291	8,457,671	10,817,952	13,178,232
	C81185A	81,958	48,677	78,421	110,184	140,908	171,651
	C83141A	163,308	158,271	254,588	352,688	452,382	551,089
	C83195	191,938	180,987	281,194	382,302	483,408	584,518
	C87071	281,465	268,784	422,228	585,688	748,110	912,562
	DOC828E	31,358	25,684	41,922	58,150	74,378	90,608
	DO5281K	427,044	337,040	548,907	782,778	975,842	1,188,508
	DO7881K	2,080,288	1,882,688	3,071,718	4,260,770	5,448,822	6,635,874
	DES1074	72,884	68,847	108,228	151,512	193,784	236,076
	DES1180	5,000	4,993	8,881	9,267	11,854	14,440

KIMT SALMON ASSOCIATES  
SCENARIO A

SPECIFICATION NUMBER	FILE NAME	M+6	M+12	M+18	M+24	M+30
DOD-L-20						
DES1278	189,484	172,533	281,558	350,808	485,512	608,618
DES1279	8,528	8,883	8,272	12,861	18,480	20,040
DES1378	3,000	2,898	4,402	7,808	9,513	9,513
DES1473	81,860	82,728	86,028	118,328	182,828	188,828
DES1478	8,808	8,883	8,272	12,861	18,480	20,040
DES1480	8,808	8,883	8,272	12,861	18,480	20,040
DES1580	8,808	8,883	8,272	12,861	18,480	20,040
DES1873	147,720	148,283	237,008	328,784	420,498	512,244
DES2073	121,858	119,898	188,788	271,573	347,381	423,148
DES2573	48,782	41,842	87,942	84,242	120,842	148,842
DES3073	7,880	10,284	16,747	23,228	28,712	38,184
DES4071	78,308	85,001	108,054	147,108	188,181	229,218
DES6788	188,484	183,088	298,738	414,378	530,018	645,658
DES978	3,000	2,898	4,402	7,808	9,513	9,513
D15290K	883,404	522,311	882,191	1,182,071	1,511,982	1,841,832
D2825D	552	508	823	1,143	1,480	1,778
D40099F	1,435,878	1,378,771	2,248,574	3,120,377	3,991,180	4,861,983
D43281B	489,000	487,008	748,842	1,034,278	1,322,913	1,611,548
D43713C	3,788,514	3,578,677	8,838,830	8,084,584	10,353,838	12,612,482
F12224F	1,171,598	878,074	1,580,811	2,208,747	2,822,883	3,438,482
F18880B	518	528	861	1,184	1,527	1,881
F43832B	45,458	38,518	82,848	87,174	111,501	135,828
F43832B	188,804	187,448	288,880	358,331	458,772	558,213
F17802D	582,358	478,923	781,401	1,083,878	1,388,358	1,688,834
G3868E	88,498	81,741	133,368	184,892	238,818	288,244
G43755B	73,584	57,277	83,452	128,627	165,802	201,977
G81188B	180,992	185,720	270,388	378,052	478,717	584,363
G835F	1,105,140					
H12225F	2,892	2,378	3,880	5,382	6,884	8,388
H1734E	3,518	3,050	4,577	6,033	7,530	9,038
H3897C	2,840	2,082	3,388	4,711	6,028	7,340
H41802D	1,142,748	838,831	1,528,513	2,120,198	2,711,878	3,303,561
H43577C	3,800	3,228	5,268	7,305	9,343	11,382
H43895A	1,788	1,281	2,041	2,832	3,622	4,412
H43878	3,852	8,397				
I43748A	8,000	2,441	3,582	5,324	7,088	8,807
I43803	240	187	288	388	488	584
J4813D		5,824,858	9,177,401	12,728,943	16,282,485	19,835,027
J21708E	121,128	107,028	174,827	242,324	308,821	377,419
J43823A	8,708	5,708	9,310	12,914	16,518	20,121
J43824B	5,388	4,585	7,448	10,331	13,214	16,097
J82283B	148,172	150,482	248,540	340,588	435,635	530,683
J82289B	14,258	12,571	20,511	28,451	36,391	44,331
J83382B	28,588	23,544	38,413	53,283	68,152	83,022
J83388B	27,840	22,873	37,320	51,788	66,213	80,558
KP148E	7,020	4,455	7,288	10,081	12,885	15,708
KP148E	7,020	4,455	7,288	10,081	12,885	15,708

KURT SALMON ASSOCIATES  
SCENARIO D

SPECIFICATION NUMBER	FILE NAME	SCENARIO A	M:8	M:12	M:18	M:24	M:30
DDD-L-20							
LPP182		10,478	8,838	14,084	19,550	25,005	30,461
L41800F		199,484	672,045	1,098,494	1,845,943	1,845,943	2,389,841
L43335C		110,520	101,519	165,637	229,754	293,872	357,990
L43466C		146,566	120,179	198,081	271,884	347,888	423,789
L43486C		146,568	120,179	198,081	271,884	347,888	423,789
L43498B		137,984	113,178	184,659	258,140	327,821	399,102
L43536D		501,756	421,158	687,153	953,147	1,218,142	1,485,137
L43872B		8,084	5,180	8,451	11,722	14,993	18,285
M11199F		40,620	32,937	55,371	76,805	98,239	119,872
M2418F		7,058	5,734	9,353	12,877	16,588	20,220
M43294B		49,088	41,163	67,161	93,159	119,157	145,155
M43945		11,028	58,953	92,923	128,894	164,864	200,834
M8090		114,744	95,849	156,059	218,169	276,878	337,288
M810G		159,072	135,505	221,087	308,689	392,251	477,834
M824J		28,438	31,096	50,738	70,378	90,018	109,655
M43741		2,880	2,389	3,868	5,407	6,916	8,425
O22778C		138,228	122,764	200,299	277,834	355,369	432,904
O2414F		98,898	84,074	138,082	191,505	244,948	298,391
O82250C		2,484	1,711	3,233	4,484	5,735	6,986
P10808E		13,834	11,582	18,897	26,211	33,528	40,341
P21593C		444	374	610	848	1,082	1,318
P43486C		231,828	194,088	318,689	438,251	561,832	684,414
P43807A		563,828	471,898	729,939	1,087,979	1,368,030	1,664,061
P8279J		90,312	80,771	131,785	182,798	233,812	284,828
P82277C		170,376	142,591	232,648	322,708	412,763	502,820
R43232D		3,240	2,731	4,455	6,180	7,904	9,629
S10586G		348,560	295,377	481,899	668,441	854,982	1,041,524
S10928F		154,248	128,447	205,774	288,170	368,031	445,892
S1898F		4,920	3,861	6,483	8,985	11,487	13,989
S17888B		4,764	3,612	6,220	8,828	11,435	13,443
S29149A		285,680	253,408	413,454	573,501	733,548	893,595
S3725D		189,588	157,937	257,987	357,437	457,187	558,937
S408F		430,764	423,616	691,166	958,717	1,226,265	1,493,814
S43013C		4,178	3,302	5,713	7,924	10,138	12,347
S43257C		94,358	88,812	141,314	198,018	250,719	305,421
S43502A		3,552	3,021	4,828	6,637	8,445	10,252
S43526B		3,898	3,155	5,148	7,141	9,133	11,128
S43828		117,780	98,227	160,285	222,303	284,341	346,380
S43829A		252,936	215,524	351,645	487,765	623,886	760,008
S43835B		800,828	531,895	887,828	1,203,783	1,539,898	1,875,930
S43826B		352,058	1,733,085	2,827,685	3,922,244	5,016,824	6,111,404
S48J		4,731,120	5,674,034	9,257,634	12,841,234	16,424,834	20,008,435
T1008F		660	567	928	1,284	1,642	2,000
T10035H		7,032	5,984	9,763	13,542	17,322	21,102
T10168H		84	70	115	159	204	248
T1110E		600	532	869	1,205	1,541	1,877
T1111E		1,128	889	1,613	2,237	2,862	3,488

SPECIFICA- TION NUMBER	FILE NAME	SCENARIO A	M+8	M+12	M+18	M+24	M+30
D00-L-20							
	T12354D	708	585	855	1,325	1,695	2,084
	T14038H	288	243	387	551	704	858
	T1712N	9,060	9,021	12,088	18,152	23,217	28,283
	T1870H	200,788	180,487	294,479	408,471	532,463	638,455
	T1928F	2,852	2,248	3,884	5,082	6,500	7,918
	T21704D	3,080	2,900	4,731	6,563	8,394	10,228
	T21705D	5,084	4,814	7,854	10,884	13,934	16,974
	T41810F	5,052	4,324	7,055	9,785	12,516	15,247
	T41812F	398	42	68	95	121	148
	T41813D	3,600	3,207	5,233	7,258	9,285	11,310
	T43217F	802,532	771,015	1,257,973	1,744,930	2,231,887	2,718,844
	T43492B	1,488	1,285	2,071	2,873	3,675	4,478
	T43497B	507,480	318,165	515,248	715,531	915,214	1,114,588
	T43654B	33,350	30,088	48,088	68,080	87,092	108,094
	T44047	3,777,372	3,718,388	6,083,577	8,410,787	10,757,958	13,105,148
	T6284K	50,556	43,860	71,725	99,489	127,253	155,018
	T82152A	284	234	382	530	678	827
	T82385	1,118	1,004	1,832	2,272	2,907	3,541
	T87020	28,704	21,604	35,248	48,692	62,637	76,181
	U17811F	554,364	544,882	888,885	1,233,109	1,577,232	1,921,355
	U43282B	508,080	510,319	832,825	1,154,932	1,477,238	1,789,545
	VP358D	281,660	205,875	335,902	465,928	595,955	725,982
	V43707B	2,040	1,915	3,124	4,333	5,542	6,751
E00-L-20	**TOTAL	48,586,411	50,346,080	82,133,183	113,828,678	148,720,188	177,813,658

# APPENDIX I DEMAND FUNCTION DERIVATION

## SECTION I: TOTAL DEMAND

Total demand for a component over a six-month study period is represented by:

$$D_T = \sum_{i=1}^6 d_i + r_i d_i \quad (D_T = d_1 + r_1 d_1 + d_2 + r_2 d_2 + \dots + d_6 + r_6 d_6)$$

where

$D_T$  = total demand for the six month period

$d_i$  = normal demand for month  $i$

$r_i$  = combat replacement percentage for month  $i$

replacement  
vs  
loss

However, our MOB factor, which represents monthly replacement requirements as a percentage of demand, is constant. I.E.,  $r_1 = r_2 = r_3 = r_4 = r_5 = r_6 = \text{MOB}$ . Therefore,

$$\begin{aligned} D_T &= \sum_{i=1}^6 d_i + r_i d_i \\ &= \sum_{i=1}^6 d_i + \sum_{i=1}^6 r_i d_i \\ &= \sum_{i=1}^6 d_i + \sum_{i=1}^6 \text{MOB} \cdot d_i \quad \text{because } r_i = \text{MOB for } i = 1 \text{ to } 6 \\ &= \sum_{i=1}^6 d_i + \text{MOB} \sum_{i=1}^6 d_i \end{aligned}$$

Letting the sum of the normal monthly demands for the six-month period

$\sum_{i=1}^6 d_i$  be represented by  $D_D$ , we now have:

$$D_T = D_D + \text{MOB} \cdot D_D$$

$D_p$  represents normal 6 month demand for all the services combined, i.e.,

$$D_p = D_{pa} + D_{pf} + D_{pn} + D_{pm} + D_{pc}$$

Where

$D_{pa}$  = Army demand

$D_{pf}$  = Air Force demand

$D_{pn}$  = Navy demand

$D_{pm}$  = Marine demand

$D_{pc}$  = Coast Guard demand

Therefore,

$$\begin{aligned} D_T &= D_p + MOB D_p \\ &= D_{pa} + D_{pf} + D_{pn} + D_{pm} + D_{pc} + MOB(D_{pa} + D_{pf} + D_{pn} + D_{pm} + D_{pc}) \\ &= D_{pa} + D_{pf} + D_{pn} + D_{pm} + D_{pc} + \\ &\quad MOB \cdot D_{pa} + MOB \cdot D_{pf} + MOB \cdot D_{pn} + MOB \cdot D_{pm} + MOB \cdot D_{pc} \\ &= D_{pa} + MOB \cdot D_{pa} + \quad (=D_A) \\ &\quad D_{pf} + MOB \cdot D_{pf} + \quad (=D_F) \\ &\quad D_{pn} + MOB \cdot D_{pn} + \quad (=D_N) \\ &\quad D_{pm} + MOB \cdot D_{pm} + \quad (=D_M) \\ &\quad D_{pc} + MOB \cdot D_{pc} + \quad (=D_C) \end{aligned}$$

In other words, total demand for the six-month period is the sum of the individual demands for each of the services during the period, i.e.,  
 $D_T = D_A + D_F + D_N + D_M + D_C$ . Individual demand for a given service (i.e.,  $D_F$ ) is the sum of the normal demand for that service ( $D_{PF}$ ) and the and the combat replacement quantity required ( $MOB \cdot D_{PF}$ ) based on that demand.

NOTES:

- Normal demand includes both new issues and normal replacement (wear and tear, loss, etc.) requirements.
- MOB is assumed to represent combat replacement requirements, not combat loss percentage. Combat replacements are always higher than combat losses, because a percentage of the replacements will also be lost. If  $l$  equals the combat loss percentage and  $R$  equals the replacement requirements, then  $R = \frac{1}{1-l} - 1$ . For example, if combat losses are 15%, then replacement allowances must be 17.6% of the original required supply.
- MOB has only been made available as a constant factor by component item. However, the formulas developed are easily modifiable if it is found to be desirable to vary the replacement factory by service or time period.

## SECTION II: SERVICE DEMAND

For a given service(s), the six-month normal demand  $D_{ps}$  shown in the previous section can be calculated by:

$$D_{ps} = \sum_{i=1}^n q_i$$

Where

$q_i$  = quantity demand at issue number  $i$  during the period

$n$  = number of issues in the period.

Further,  $q_i$  can be calculated by:

$$q_i = n_i p_i s_i$$

Where

$n_i$  = number of units issued per person at issue  $i$

$p_i$  = percent of service strength receiving the item at issue  $i$

$s_i$  = service size at issue  $i$

Therefore,

$$D_{ps} = \sum_{i=1}^n n_i p_i s_i$$

The above formula requires the availability of figures for each individual issue during the given six-month study period. However, the only data currently available is:

- Current annual peacetime demand for all services combined

- Current base service strength for each service
- Projected service strength relative to base at the end of each six-month period.

Therefore, the following assumptions must be made in order to approximate expected demand with any degree of accuracy. Modifications to these assumptions will produce different results than those achieved.

- Demand is spread evenly across the year.
- Issue periods can be presumed to be "monthly" for demand smoothing purposes (because of monthly MOB factor).
- Demand increases linearly with growth in service strength.
- Demand is spread evenly across all services receiving the item according to relative service strength.
- Mobilization does not create an additional demand relative to peacetime other than that resulting from increased service strength.
- Growth (or decrease) in service strength is linear throughout a given six-month period.

Based on the above assumptions, the six-month service normal demand formula

$D_{ps} = \sum_{i=1}^n n_i p_i s_i$  can be re-evaluated and restated. The combination of the

factors  $(n_i p_i)$  give one factor representing "demand units relative to service strength." Because demand is now assumed to be spread evenly across the year, the number of units given to each person at an issue  $(n_i)$  and the percent of service strength receiving the item at an issue  $(p_i)$  will be constant. The combination "demand factor" will therefore also be constant. Because a monthly issue period is assumed, the factor can be labeled "monthly demand units relative to service strength," and the formula recalculated as follows:

$$\begin{aligned}
D_{ps} &= \sum_{i=1}^6 n_i p_i s_i \\
&= \sum_{i=1}^6 f_i s_i \quad f_i = n_i p_i \\
&= \sum_{i=1}^6 f s_i \quad f_1 = f_2 = f_3 = \dots = f_6 = f \text{ "monthly demand factor"} \\
&= f \sum_{i=1}^6 s_i
\end{aligned}$$

The "monthly demand units relative to service strength" can be calculated from the available figures for total annual demand and relative base service strengths. Having identified all services receiving the item, it is assumed as stated above that demand is spread evenly across all services receiving the item according to relative service strength. For example, for an item received by all services,

$$S_T = S_A + S_F + S_N + S_M + S_C$$

Where

$S_T$  = total strength of all services receiving the item

$S_A$  = base Army strength

$\vdots$  = etc.

For an item received only by the Air Force and Army,

$$S_T = S_A + S_F$$

The relative percent of use by a given service  $S$  is represented by:

$$R_S = S_S / S_T$$

The portion of the annual demand is therefore  $D_S = R_S \cdot A$ , where  $A$  is the current total annual demand.

Annual demand units relative to service strength can now be represented by:

$$AF_S = D_S/S_S$$

To arrive at a monthly figure, the yearly figure is simply divided by twelve.

In order to convert the six month service normal demand formula into something more easily calculatable from the figures available, the following relationship can be derived.

$$D_{ps} = f \sum_{i=1}^6 S_i$$

- = Monthly demand unit factor \* Sum of service sizes at each month
- = Six-month demand unit factor \* Average service size during six-month period
- =  $6f \left( \sum_{i=1}^6 S_i / 6 \right)$

Note that the "six-month demand units as a percent of service strengths" is simply half the annual figure, or six times the monthly figure.

For computing the average service size during the six month period, the figures available are the service size relative to service base at the end of each six-month period. The most straightforward way to compute average service size in a six month period is therefore to calculate average size growth relative to the ending size for the previous six months, and then multiply this factor by the previous ending size to arrive at the average size.

Because growth factors relative to base are given as factors, not percentages (i.e., 1.02 not 102), the relative size from the end of one period to the end of the next is given by:

$$M_S/M_0 - 1$$

where

$M_1$  is the size factor relative to base at end of the current six-month period.

$M_0$  is the size factor relative to base at end of the previous six-month period.

Because growth (or decrease) is assumed to be linear, the average relative size from one period to the next is:

$$7/12 (M_1/M_0 - 1).$$

The ending size of the previous period is:

$$S_S \cdot M_0$$

Where  $S_S$  is the base service strength.

The average size in the current period is therefore the ending previous size plus the average relative size increase (or decrease), i.e.,

$$\begin{aligned} \text{Avg. size} &= (S_S \cdot M_0) + 7/12 (M_1/M_0 - 1) \cdot (S_S \cdot M_0) \\ &= S_S \cdot M_0 \left[ 1 + 7/12 (M_1/M_0 - 1) \right] \end{aligned}$$

Therefore

$$\begin{aligned} D_{ps} &= 6f \cdot S_S \cdot M_0 \left[ 1 + 7/12 (M_1/M_0 - 1) \right] \\ &= \frac{AFs}{2} \cdot S_S \cdot M_0 \left[ 1 + 7/12 (M_1/M_0 - 1) \right] \end{aligned}$$

SECTION III: SUMMARIZATION OF FORMULAS

Normal six-month demand for a service:

$$D_{ps} = \frac{AF_s}{2} \cdot S_s \cdot M_0 \cdot \left[ 1 + 7/12 (M_1/M_0 - 1) \right]$$

Total six-month demand for a service:

$$D_s = D_{ps} + MOB \cdot D_{ps}$$

Total demand for all services:

$$D_T = D_A + D_F + D_N + D_M + D_C$$

#### SECTION IV: COMPUTER CALCULATIONS

In order to facilitate the computer calculations, the annual demand units factor ( $AF_S$ ) was factored out of the equation and applied last. The following formula

$$D_S = D_{ps} = MOB \cdot D_{ps}$$

was actually calculated as

$$\begin{aligned} D_S &= D_{ps} + MOB \cdot D_{ps} \\ &= \frac{AF_S}{2} \left\{ S_S \cdot M_0 \left[ 1 + 7/12 (M_1/M_0 - 1) \right] \right\} \\ &\quad + MOB \cdot \frac{AF_S}{2} S_S \cdot M_0 \left[ 1 + 7/12 (M_1/M_0 - 1) \right] \\ &= \frac{AF_S}{2} \left\{ \underbrace{S_S \cdot M_0 (1 + 7/12 (M_1/M_0 - 1))}_A \right. \\ &\quad \left. + MOB \cdot \underbrace{(S_S \cdot M_0 (1 + 7/12 (M_1/M_0 - 1)))}_B \right\} \end{aligned}$$

The formula was then calculated as follows:

- |   |  |                     |
|---|--|---------------------|
| ① | $S_S \cdot M_0 (1 + 7/12 (M_1/M_0 - 1))$ | (A)                 |
| ② | $MOB \cdot$ ①                            | (B)                 |
| ③ | ① + ②                                    | Sum inside brackets |
| ④ | $\frac{AF_S}{2} \cdot$ ③                 | Total               |

This was done for each service, then summed to obtain a grand total.

The growth factors, annual demand, start strength and MOB were all given figures.

$AF_S$ , shown as "percent of strength receiving items" was calculated in another routine based on the formulas shown in this appendix, and entered into this routine. The figures shown are the yearly unit demand relative to service strength" factors.

# APPENDIX J

## MILITARY TEXTILE DEMANDS MAXIMUM STRENGTH REQUIREMENTS GENERAL CATEGORIES

(In Millions)

<u>Category</u>	<u>Measure</u>	<u>Peacetime</u>	<u>Scenario B</u>	<u>Scenario C</u>	<u>Scenario D</u>
Broadwovens	ESY	145.39	449.18	240.40	750.20
Narrow Fabrics	LY	112.08	373.33	207.64	729.63
Knits	ESY	21.07	81.83	43.83	167.68
Non-wovens	ESY	.14	.47	.24	.76
Thread	LY	12,050.64	38,580.54	20,132.40	57,216.98

APPENDIX K. TEXTILE COMPONENT REQUIREMENT TOTALS BY SCENARIO & SIX-MONTH INCREMENT

KURT SALMON ASSOCIATES										DATE	01/15/83	PAGE	1
SCENARIO B													
SPECIFICATION NUMBER	SCENARIO A	M+6	M+12	M+18	M+24	M+30	M+36						
B	CC-C-467	504	312	458	530	547	540						
	CCC-C-41	24,174	18,159	22,508	27,878	30,782	31,455						
	CCC-C-419	3,852,038	2,784,489	4,045,637	4,710,107	4,954,482	4,944,776						
	CCC-C-426	284,588	194,003	280,560	328,802	348,308	347,610						
	CCC-C-428	528	21	31	38	39	40						
	CCC-C-428	1,031,523	739,484	1,081,278	1,280,984	1,324,927	1,320,721						
	CCC-C-430	2,298,813	1,480,711	2,058,207	2,482,704	2,730,181	2,783,951						
	CCC-C-432	38,048	25,604	35,727	42,209	45,953	46,329						
	CCC-C-436	3,778,132	2,957,842	4,412,725	5,117,248	5,331,836	5,287,260						
	CCC-C-438	705,540	335,022	474,082	569,214	623,398	634,484						
	CCC-C-440	7,583	5,789	8,527	9,851	10,178	10,049						
	CCC-C-441	821	398	544	628	683	668						
	CCC-C-448	72,870	56,530	78,244	92,681	100,884	102,416						
	CCC-C-461	799,881	528,165	735,823	898,497	997,229	1,019,543						
	CCC-C-467	2,821,880	2,126,878	3,131,448	3,842,276	3,807,447	3,783,640						
	CCC-C-478	1,898	1,645	2,481	2,843	2,980	2,971						
	KSA-B-1000	10,482	8,925	12,483	14,990	16,570	16,982						
	KSA-C-1100	1,234	289	443	512	522	510						
	KSA-C-1200	1,044,414	878,038	922,820	1,088,184	1,125,325	1,132,934						
	KSA-C-2000	1,358,787	938,544	1,438,701	1,880,818	1,997,708	1,959,945						
	KSA-C-3000	252,274	181,882	225,488	277,301	308,401	315,138						
	KSA-C-4000	81	62	80	104	109	107						
	KSA-C-5000	1,824	1,551	2,234	2,582	2,817	2,894						
	KSA-C-8000	162,283	151,513	215,209	254,652	273,473	275,812						
	KSA-C-9000	244,838	243,433	345,773	409,144	439,385	443,143						
	LPP-DES13-80	10,184	9,507	14,390	16,828	17,214	17,004						
	LPP-DES15-73	987,173	834,257	1,208,181	1,418,995	1,500,347	1,501,489						
	LPP-DES23-73	474,653	383,420	528,308	617,275	653,538	654,076						
	LPP-DES33-75	698,124	544,854	788,491	922,578	960,743	954,820						
	MIL-C-10176	1,105,137	886,150	1,297,021	1,488,780	1,608,068	1,631,878						
	MIL-C-10298	4,512,328	3,518,376	5,057,558	5,921,708	6,270,720	6,248,893						
	MIL-C-10789	12,468	9,387	13,599	15,912	16,928	17,011						
	MIL-C-10859	2,268,920	1,654,836	2,409,862	2,818,849	2,975,410	2,972,240						
	MIL-C-11085	958,870	705,144	1,018,945	1,192,918	1,281,450	1,255,843						
	MIL-C-12095	1,024,198	789,393	1,182,435	1,350,074	1,409,103	1,389,424						
	MIL-C-12189	3,068,303	2,565,301	3,760,351	4,345,271	4,525,702	4,488,688						
	MIL-C-12389	580,944	1,139,688	1,702,281	1,977,668	2,055,172	2,032,782						
	MIL-C-15082	11,978	45,170	68,177	78,488	81,982	82,502						
	MIL-C-16280	330,335	220,506	308,926	378,720	418,328	427,284						
	MIL-C-16375	24,839	51,631	79,188	91,493	93,403	91,246						
	MIL-C-18287	190,551	147,273	218,554	250,203	259,443	251,249						
	MIL-C-19002	825	804	824	852	1,005	1,011						
	MIL-C-19589	2,851	1,907	2,827	3,215	3,573	3,653						
	MIL-C-19759	953,300	670,007	927,014	1,100,181	1,197,054	1,220,475						
	MIL-C-20898	21,662	15,805	23,081	28,809	27,858	27,438						
	MIL-C-21115	4,680,369	4,318,894	6,270,458	7,316,958	7,883,428	7,898,975						
	MIL-C-2184	8,584	8,800	10,430	12,050	12,302	12,018						
	MIL-C-21852	284,737	178,543	250,888	302,110	329,653	335,146						
	MIL-C-21881	1,587,321	1,180,608	1,678,090	1,958,353	2,133,809	2,163,882						
	MIL-C-23928	826	804	824	852	1,005	1,011						

SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
MIL-C-28118	38,040	31,183	45,274	53,208	58,223	58,132	58,719
MIL-C-28127	909,878	874,128	781,504	850,373	1,058,909	1,078,855	1,080,478
MIL-C-28137	7,875	8,737	8,445	8,885	10,520	10,473	10,387
MIL-C-28147	885,011	470,940	655,934	808,882	887,131	918,731	917,838
MIL-C-28383	230,278	192,212	278,259	320,339	349,350	358,818	374,232
MIL-C-287	601,838	470,910	678,488	788,581	858,874	878,780	908,584
MIL-C-328	837,372	1,300,488	1,910,195	2,234,390	2,373,312	2,380,882	2,398,753
MIL-C-332	1,129,343	799,782	1,188,228	1,358,407	1,438,218	1,438,405	1,433,077
MIL-C-338	13,551	10,183	14,848	17,273	17,824	17,758	17,580
MIL-C-342	3,838,575	2,723,058	3,788,858	4,492,828	4,858,530	4,825,328	4,828,289
MIL-C-3453	808,488	778,878	878	878	878	878	878
MIL-C-358	57,205	47,216	67,873	78,828	88,837	88,181	91,928
MIL-C-3760	103,738	74,753	107,944	128,503	133,948	134,077	133,488
MIL-C-3824	2,232,928	1,884,474	2,414,031	2,818,083	2,887,068	2,880,420	2,859,220
MIL-C-3853	1,025	1,025	1,025	1,025	1,025	1,025	1,025
MIL-C-40039	5,397	3,873	5,704	6,733	7,104	7,088	7,011
MIL-C-41808	41,108	30,807	43,007	52,001	53,713	53,042	52,217
MIL-C-41820	489,858	453,291	483,987	780,275	820,928	814,975	814,388
MIL-C-4277	131,239	131,239	131,239	131,239	131,239	131,239	131,239
MIL-C-43122	358,573	175,028	253,932	287,758	313,378	312,207	308,511
MIL-C-43128	388,200	318,070	485,230	542,218	570,321	588,920	589,474
MIL-C-43191	8,318,273	4,483,087	8,435,995	7,552,134	8,004,827	8,015,131	7,978,545
MIL-C-43204	187,308	125,774	183,104	214,101	228,078	225,989	228,345
MIL-C-43234	58,248	41,653	60,121	70,488	74,833	74,719	74,388
MIL-C-43251	792,288	532,920	808,192	934,888	983,839	948,584	941,880
MIL-C-43375	177,457	134,424	194,674	228,320	241,735	241,937	240,874
MIL-C-43468	4,097,991	3,328,202	4,823,878	5,444,604	5,881,922	5,938,100	5,920,758
MIL-C-43473	2,436,303	1,809,137	2,584,356	3,022,883	3,205,341	3,212,428	3,197,594
MIL-C-43478	2,389,844	1,788,052	2,477,881	2,828,108	3,154,636	3,166,118	3,168,482
MIL-C-43482	3,088,708	2,082,148	3,108,933	3,832,783	3,786,023	3,781,733	3,740,328
MIL-C-43504	17,321	12,897	18,382	22,383	22,881	22,333	22,018
MIL-C-43525	402,334	282,211	423,584	484,310	515,271	508,938	507,085
MIL-C-43594	2,397,175	805,722	1,183,244	1,370,885	1,423,787	1,410,389	1,393,819
MIL-C-43800	50,820	47,836	71,948	83,131	86,072	85,021	84,317
MIL-C-43805	883,480	683,578	872,843	1,124,024	1,170,518	1,182,930	1,165,686
MIL-C-43827	4,735,878	3,818,830	5,299,584	6,178,282	6,474,740	6,444,591	6,403,224
MIL-C-43837	1,105,200	873,342	1,260,635	1,477,571	1,584,959	1,588,780	1,559,828
MIL-C-43675	88,048	48,178	73,880	85,372	87,155	85,140	83,829
MIL-C-43718	1,221,788	1,580,432	2,324,902	2,722,134	2,889,853	2,897,313	2,808,878
MIL-C-43734	12,883	18,051	22,427	26,088	27,188	28,985	28,848
MIL-C-43774	4,843	4,248	6,168	7,473	7,685	7,550	7,463
MIL-C-43791	70,551	47,189	87,784	81,073	87,302	87,817	87,443
MIL-C-43842	134,708	159,228	238,285	276,500	287,372	284,385	282,974
MIL-C-43843	1,241,741	880,878	1,418,588	1,660,083	1,757,607	1,759,222	1,751,201
MIL-C-43847	21,216	19,797	23,230	28,838	27,723	27,377	26,851
MIL-C-43874	23,040	17,148	25,249	29,172	30,122	29,738	29,274
MIL-C-43892	1,858,573	8,234,787	12,072,602	13,848,728	14,525,814	14,431,752	14,340,718
MIL-C-43908	4,085,171	2,873,356	3,183,633	4,892,117	5,180,428	5,147,818	5,093,548
MIL-C-43920	610,290	431,107	607,920	730,818	807,335	828,492	838,751

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SPECIFICATION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
B	MIL-C-43892	3,271,583	707,488	1,085,098	1,253,717	1,278,801	1,232,530
	MIL-C-44031	25,595,592	22,581,758	32,702,883	38,354,744	40,207,811	40,482,583
	MIL-C-44034	7,842	5,701	4,357	9,868	10,053	8,227
	MIL-C-44043	80,884	105,570	158,990	182,483	189,757	187,821
	MIL-C-44050	931,117	1,050,241	1,593,847	1,818,780	1,893,923	1,869,984
	MIL-C-483	271,934	216,408	315,183	384,217	371,689	365,666
	MIL-C-484	2,312,488	1,824,022	2,841,304	3,087,938	3,258,340	3,231,538
	MIL-C-508	1,357,203	1,080,404	1,593,808	1,841,380	1,920,418	1,911,383
	MIL-C-51251	250,560	189,868	278,883	328,184	347,572	345,132
	MIL-C-7020	1,070,408	1,088,302	1,070,403	1,071,043	1,071,307	1,071,281
	MIL-C-7219	1,191,729	873,528	1,258,722	1,471,398	1,557,488	1,552,383
	MIL-C-7350	6,834,867	5,472,658	7,895,788	8,938,081	8,437,188	8,406,320
	MIL-C-81814	185,423	106,283	145,754	173,801	188,408	189,752
	MIL-C-82282	34,891	28,924	41,882	48,142	52,539	58,311
	MIL-C-823	2,344,574	3,892,435	5,808,008	6,568,328	7,065,417	7,285,704
	MIL-C-83428	967,698	814,288	1,197,388	1,383,438	1,428,988	1,389,197
	MIL-C-83450	52,988	33,950	48,558	55,452	60,182	60,625
	MIL-C-87052	933,444	3,145,583	4,341,231	5,387,988	5,992,277	6,129,258
	MIL-F-43538	157,517	115,494	166,719	185,399	208,941	206,249
	MIL-T-3594	255,908,928	55,341,387	84,878,891	98,068,515	100,118,691	98,411,213
	MIL-T-43718	64,671	25,819	38,811	45,958	47,822,721	45,220
		3,023,910	2,623,718	3,781,224	4,420,154	4,737,895	4,756,777
B	**TOTAL	-288,282,528	175,210,683	482,088,730	205,232,758	319,747,890	314,898,992
		101,303,213	180,162,481	265,117,154	303,793,323	320,773,535	319,323,950
K	KSA-C-1000	382,020	152,580	219,788	257,735	273,302	273,830
	KSA-K-1000	8,407,849	7,115,044	10,288,570	12,038,488	12,748,894	12,705,683
	KSA-K-2000	628,221	511,272	781,188	883,833	938,398	935,611
	KSA-K-3000	1,668,959	1,353,608	1,953,731	2,289,887	2,425,288	2,417,211
	KSA-K-4000	64,671	47,372	68,374	80,139	84,878	84,598
	KSA-K-5000	665	422	581	711	780	808
	KSA-K-6000	18,021	11,844	17,184	20,188	21,272	20,993
	KSA-K-8000	11,374	8,173	11,798	13,828	14,844	14,585
	KSA-K-900	1,440	1,051	1,545	1,785	1,844	1,782
	KSA-Y-1000	1,514,817,800	1,022,265,141	1,473,384,933	1,727,635,732	1,831,037,557	1,825,513,289
	KSA-Y-2000	15,143,228	15,158,808	21,974,023	25,808,398	27,588,058	27,588,308
	KSA-Y-3000	88,153	72,574	105,183	123,280	130,568	130,134
	LPP-DE512-80	26,138	24,447	37,002	42,783	44,265	43,672
	MIL-C-17155	721,708	541,771	755,931	913,848	1,007,881	1,028,825
	MIL-C-17157	1,338,728	1,085,351	1,587,182	1,843,058	1,941,714	1,917,110
	MIL-C-3735	4,138,544	3,180,618	4,538,910	5,358,315	5,728,435	5,760,340
	MIL-C-40004	25,238	17,048	24,607	28,842	30,580	30,440
	MIL-C-41831	21,402	18,258	25,495	30,684	33,887	34,700
	MIL-C-43247	108,753	84,007	121,578	142,148	150,118	149,384
	MIL-C-43352	8,170	6,655	9,434	11,112	12,005	11,824
	MIL-C-43356	178,107	138,881	189,383	233,650	247,581	248,433
	MIL-C-43824	18,238	14,320	21,044	24,328	25,142	24,453
	MIL-C-43858	1,650,263	7,324,717	10,738,420	12,407,183	12,920,458	12,758,787
	MIL-C-43938	337,508	248,116	377,475	436,131	445,241	428,782
	MIL-C-43983	789,784	686,392	1,030,788	1,212,029	1,279,994	1,274,158
	MIL-C-6590	249,189	192,919	282,338	326,859	335,208	330,180

SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
K							
MIL-C-8081	408	338	499	588	623	623	623
MIL-C-81393	930	900	1,210	1,399	1,447	1,430	1,428
MIL-C-83388	69,828	45,089	61,631	71,078	75,022	75,528	74,178
MIL-Q-3888	204,970	183,972	225,731	280,910	271,598	289,838	288,134
K	**TOTAL	1,851,121,677	1,060,465,848	1,528,748,408	1,782,581,688	1,889,786,771	1,884,025,870
M							
KSA-NV-100	23,470	51,777	70,693	81,676	88,218	88,808	85,278
M	**TOTAL	23,470	51,777	81,676	88,218	88,808	85,278
N							
DDP-T-88	2,985,408	2,870,248	4,108,000	5,822,429	5,352,148	5,421,889	5,448,840
JJ-W-155	31,488,828	28,178,353	37,831,284	44,278,090	46,830,438	46,858,988	46,850,201
KSA-R-1009	557,001	350,355	531,121	638,834	708,180	722,913	732,488
KSA-T-2000	48,344	11,548	17,711	20,483	20,890	20,408	20,117
KSA-T-3000	283,188	191,651	293,728	339,440	348,529	338,704	333,704
KSA-W-1000	30,840	7,217	11,068	12,789	13,058	12,755	12,673
MIL-B-1887	481,218	350,999	538,339	621,993	634,984	620,308	611,482
MIL-B-371	14,628,788	20,242,880	29,419,598	34,214,911	35,931,029	35,845,007	35,654,930
MIL-B-593	1,164,198	1,064,839	1,553,283	1,815,905	1,811,042	1,805,322	1,803,712
MIL-C-7040	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030
MIL-F-21840	5,483,733	5,501,412	8,013,977	9,318,850	9,750,318	9,700,889	9,614,885
MIL-T-2383	208,663	135,207	184,584	213,237	225,065	228,587	222,535
MIL-T-43568	17,823,103	20,358,878	29,893,812	34,572,897	38,334,356	38,238,782	38,041,338
MIL-T-43709	18,793	11,149	18,903	19,528	20,184	19,910	19,854
MIL-T-5038	5,437,838	4,347,289	6,223,888	7,271,054	7,888,289	7,894,228	7,881,038
MIL-T-5237	80,918	63,888	90,141	108,282	119,578	122,412	124,424
MIL-T-5881	33,059	32,848	33,058	32,181	32,231	32,238	32,221
MIL-T-6134	47,138	47,138	47,138	47,138	47,138	47,138	47,138
MIL-T-8383	185	135	185	213	225	227	223
MIL-W-17237	83,801	58,397	83,974	97,144	101,182	100,302	99,894
MIL-W-27285	578,742	553,348	584,707	602,274	609,350	608,457	608,931
MIL-W-4088	7,049,193	5,310,714	7,801,753	8,838,908	8,303,938	8,283,898	8,280,781
MIL-W-43588	2,599,693	1,995,879	2,938,271	3,413,814	3,569,843	3,548,201	3,528,182
MIL-W-43838	3,340,125	1,998,805	2,881,358	3,391,041	3,590,300	3,593,297	3,577,515
MIL-W-43885	395,507	300,192	441,048	508,588	530,386	528,890	523,458
MIL-W-43888	380,487	278,683	403,687	472,701	500,754	501,621	500,588
MIL-W-5038	4,252	4,252	4,252	4,252	4,252	4,252	4,252
MIL-W-530	12,824,245	9,880,885	14,423,892	16,803,039	17,823,588	17,851,488	17,432,198
MIL-W-5825	10,858	10,858	10,858	10,858	10,858	10,858	10,858
MIL-W-5884	578,499	443,087	643,298	748,278	785,540	783,310	778,461
MIL-W-5885	786,228	408,127	498,702	548,120	589,059	589,250	587,589
PPP-T-80	393	393	393	393	393	393	393
N	**TOTAL	112,883,840	108,853,829	152,722,738	177,808,834	186,785,458	186,542,729
T							
C-T-301	11,084	522	801	928	945	923	910
KSA-T-1000	172,584	143,328	208,455	238,584	280,351	287,425	279,047

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TYPE	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
T							
MIL-T-34548	317,520	222,852	322,737	378,516	400,788	401,088	399,328
MIL-T-43548	8,070,255,420	7,237,771,240	10,487,111,714	12,348,942,071	13,149,588,229	13,199,105,587	13,155,810,268
MIL-T-43824	54,588,080	12,437,680	17,848,421	20,748,748	22,181,448	22,348,602	22,360,804
MIL-T-43638	30,478,623	33,828,487	48,883,438	57,948,330	60,438,338	59,938,415	58,880,810
MIL-T-83183	95,951,078	78,157,621	110,530,819	128,425,340	132,914,076	132,884,997	131,104,472
V-B-871	183,200	187,375	227,184	268,258	282,003	282,331	281,078
V-T-278	1,650,548,108	1,883,502,808	2,382,782,283	2,783,152,548	2,989,457,508	3,037,093,858	3,088,685,584
V-T-280	35,881,089	38,301,550	52,470,192	61,477,407	65,217,932	65,384,889	65,274,229
V-T-285	1,203,730,792	908,854,088	1,321,087,736	1,548,348,753	1,632,250,888	1,630,605,078	1,622,891,417
V-T-285	478,804,825	399,114,104	587,306,018	682,584,697	701,983,585	703,818,804	700,827,288
V-T-301	10,048,052	35,990,650	53,372,688	81,777,057	85,338,185	85,858,988	86,592,678
V-T-385	62,368,400	40,478,402	56,283,331	68,742,088	72,489,358	73,741,473	73,887,442
11,704,124,933	10,283,340,447	13,225,418,447	17,887,691,300	19,052,477,524	19,440,704,834	19,445,551,776	19,445,551,776
1,692,076,819	1,084,350,507	1,539,184,558	1,779,027,508	1,899,821,083	1,984,346,228	1,985,898,880	1,985,898,880
W							
MIL-B-87018	47,552	30,528	42,820	52,291	58,158	59,428	59,488
MIL-C-29265	31,843	28,883	38,408	44,438	48,515	48,828	51,948
MIL-C-43838	38,045	21,747	31,854	37,378	38,487	38,421	38,283
11,704,124,933	117,440	78,858	112,783	134,107	148,158	148,673	150,728
Z							
C-F-208	1,073	780	1,070	1,291	1,427	1,480	1,481
DOD-L-20	85,965,775	54,801,012	79,001,018	92,834,941	98,532,869	98,949,391	98,955,499
KK-L-2004	12,627	10,533	15,211	17,828	18,873	18,893	18,808
KK-L-254							
KK-L-271	15,282	11,228	18,260	19,071	20,191	20,208	20,119
KSA-K-7000	855,304	357,353	521,807	602,173	627,550	623,842	619,884
KSA-N-1000	4,242	3,377	4,718	5,872	6,270	6,418	6,504
KSA-PC-100	28,488	20,776	31,853	38,808	37,583	38,720	38,200
KSA-WP-100	5,332	4,548	6,351	7,638	8,444	8,644	8,759
L-S-125	588,520	442,804	647,818	753,138	788,478	781,350	773,847
LPP-DES-78	99,732	77,808	114,070	131,787	137,249	138,380	135,500
MIL-B-17757	170,115	125,231	181,367	212,708	225,192	228,372	224,378
MIL-B-41828	7,208,288	5,458,502	7,892,789	9,242,488	9,773,035	9,778,828	9,728,842
MIL-B-81813	107,185	88,010	97,195	114,204	121,893	122,212	121,957
MIL-C-15085	154,704	724,345	1,088,872	1,235,055	1,313,528	1,324,218	1,353,859
MIL-C-1734	2,580	2,788	4,016	4,840	5,084	5,201	5,427
MIL-C-43258	755,378	557,257	808,491	948,228	987,570	988,354	990,828
MIL-C-43303	2,358,324	2,250,201	3,288,186	3,817,880	4,021,084	4,013,804	3,962,788
MIL-C-43424	23,874	17,898	28,843	30,344	32,020	31,853	31,614
MIL-C-43878	1,288,682	945,903	1,385,428	1,600,381	1,684,940	1,688,871	1,689,310
MIL-C-43701	57,137	41,775	60,771	70,898	74,817	74,480	71,080
MIL-C-5040	4,008,782	3,780,086	4,108,680	4,278,684	4,335,008	4,330,700	4,320,841
MIL-C-7515	2,728,878	2,708,728	2,737,448	2,782,485	2,787,084	2,788,331	2,785,602
MIL-C-83242	80,876	61,816	71,080	81,633	81,852	83,248	82,528
MIL-H-41802	279,250	880,018	1,201,188	1,508,502	1,583,348	1,528,314	1,508,384
MIL-L-11075	14,880	16,408	11,159	18,955	19,580	19,337	19,038
MIL-L-15040	60,860	501,474	722,338	834,883	910,810	935,862	978,323
MIL-L-1670	37,200	27,899	41,014	47,387	48,950	48,342	47,590
MIL-L-1708	232,427	181,198	288,078	308,274	320,754	320,058	320,088

TYPE	SCENARIO A	M+0	M+12	M+18	M+24	M+30	M+36
Z	47,278	34,205	49,370	57,866	61,287	61,357	61,081
MIL-L-40051	1,800	1,533	2,320	2,851	2,776	2,742	2,739
MIL-L-40089	890,884	1,817,266	2,863,788	3,081,334	3,307,800	3,345,038	3,421,882
MIL-P-15084	156,000	181,655	198,898	228,892	238,236	238,477	235,035
MIL-R-1670	1,875,000	487,384	714,532	828,572	859,720	854,148	849,784
MIL-R-17343	6,750,000	1,784,584	2,872,318	2,872,058	3,084,961	3,074,832	3,058,513
MIL-R-24049	4,985,083	1,537,040	2,269,363	2,610,475	2,718,987	2,897,835	2,881,835
MIL-R-30500	388,851	281,813	431,813	498,868	509,735	498,200	491,197
MIL-S-3577	335,828	1,228,592	1,858,812	2,155,004	2,318,088	2,180,748	2,181,808
MIL-S-35355	7,029	23,304	34,088	39,848	41,129	40,789	40,281
MIL-S-43983	28,773	222,537	330,012	382,384	398,110	384,868	392,883
MIL-S-6780	300,144	476,725	703,454	818,918	852,493	846,477	841,350
MIL-T-10828	8,072	2,141	3,883	3,889	3,889	4,188	4,188
T-C-571	3,960	159	228	265	289	267	310
T-R-805	1,045,844	788,239	1,108,794	1,291,855	1,359,038	1,355,838	1,348,978
T-R-818	22,843	16,548	28,231	29,185	29,935	28,384	28,071
T-T-871	883,872	846,761	845,673	1,103,087	1,158,631	1,156,312	1,151,088
T-T-881	164,200	38,088	55,348	63,947	65,282	63,774	62,886
V-F-108	1,419,410	1,063,239	1,834,888	1,799,229	1,905,080	1,908,833	1,897,487
V-L-81	108,711,735	84,572,092	118,885,524	139,287,425	147,399,854	147,828,272	147,547,505
**TOTAL							

SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
B							
CC-C-487	504	237	257	284	297	301	311
CC-C-41	24,174	13,524	14,070	14,524	14,578	14,474	14,582
CC-C-419	3,852,038	2,098,448	2,282,381	2,508,838	2,822,888	2,858,888	2,744,058
CC-C-428	284,568	151,710	182,818	175,870	182,782	184,083	189,325
CC-C-428	528	14	18	18	19	20	20
CC-C-428	1,021,523	558,030	607,484	665,342	697,087	705,858	729,825
CC-C-430	2,298,613	1,210,895	1,273,807	1,319,234	1,328,547	1,328,088	1,339,882
CC-C-432	38,018	20,223	21,830	22,858	23,024	23,144	23,550
CC-C-438	3,778,132	2,135,848	2,381,755	2,678,352	2,848,235	2,898,841	3,018,028
CC-C-438	432,998	291,881	281,325	298,840	304,868	308,828	312,243
CC-C-440	7,583	4,401	4,784	5,244	5,589	5,782	5,782
CC-C-441	821	327	343	347	349	348	353
CC-C-448	72,870	45,118	48,032	49,897	50,427	50,600	51,332
CC-C-481	799,581	429,201	451,848	470,455	473,900	472,773	477,243
CC-C-487	2,821,880	1,588,965	1,739,614	1,919,311	2,020,702	2,048,645	2,122,503
CC-C-478	1,988	1,134	1,293	1,474	1,570	1,608	1,680
KSA-B-1000	10,482	8,985	7,513	7,940	8,055	8,109	8,238
KSA-C-1100	1,234	208	252	237	288	284	308
KSA-C-1200	1,044,414	555,585	582,588	589,613	592,211	591,104	598,493
KSA-C-2000	1,803,507	720,035	800,859	919,428	933,011	1,011,284	1,059,887
KSA-C-3000	252,274	135,489	140,055	145,518	148,029	145,514	145,895
KSA-C-4000	81	48	50	55	58	59	61
KSA-C-5000	1,834	598	1,180	1,327	1,379	1,428	1,479
KSA-C-8000	152,283	119,023	127,528	135,638	139,182	139,579	143,078
KSA-C-9000	244,838	191,233	204,899	217,768	223,589	224,802	229,881
LPP-DES13-90	10,164	8,694	7,548	8,641	9,271	9,474	9,912
LPP-DES18-73	987,173	639,181	691,828	748,774	778,641	788,269	809,285
LPP-DES23-73	474,853	278,011	301,291	328,184	338,194	342,512	352,547
LPP-DES32-75	698,124	423,997	444,214	468,810	513,832	521,511	540,440
MIL-C-10176	1,105,137	526,753	683,711	773,144	812,102	837,184	879,180
MIL-C-10298	4,512,328	2,717,122	2,934,062	3,158,403	3,372,389	3,301,886	3,393,802
MIL-C-10799	12,468	7,203	7,691	8,373	8,708	8,824	9,092
MIL-C-10859	2,258,920	1,253,755	1,384,888	1,487,001	1,553,248	1,570,845	1,620,428
MIL-C-11055	958,670	540,541	585,653	634,093	659,758	668,453	689,212
MIL-C-12095	1,024,198	588,237	645,317	712,059	750,000	760,544	788,230
MIL-C-12158	3,071,980	1,805,433	2,094,770	2,303,732	2,422,378	2,458,445	2,547,605
MIL-C-12359	515,121	688,034	780,788	851,132	903,152	917,684	954,263
MIL-C-15052	11,978	29,952	34,874	38,453	41,487	42,738	44,432
MIL-C-16290	330,335	184,418	191,938	198,008	198,713	197,365	198,671
MIL-C-16375	24,839	37,234	41,457	47,690	51,573	52,535	55,094
MIL-C-16387	190,551	111,771	121,504	133,178	140,310	141,948	147,104
MIL-C-18002	828	468	520	528	529	528	531
MIL-C-19698	2,851	1,808	1,872	1,728	1,732	1,723	1,734
MIL-C-19759	953,300	538,850	570,481	592,318	598,339	600,944	609,408
MIL-C-20688	21,682	12,068	13,076	14,260	14,350	15,115	15,824
MIL-C-21115	4,690,283	2,998,574	3,410,065	3,791,294	3,953,932	4,048,810	4,187,344
MIL-C-2124	8,594	4,304	5,480	6,281	6,719	6,919	7,259
MIL-C-21852	284,737	140,315	149,560	158,898	162,680	163,235	168,297
MIL-C-21881	1,567,321	823,760	935,247	1,020,427	1,049,609	1,074,436	1,104,375
MIL-C-23926	825	498	520	528	529	528	534

## SCENARIO C

SPECIFICATION	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
B							
MIL-C-29118	38,040	24,056	25,989	28,187	29,392	29,653	30,543
MIL-C-29127	909,978	486,782	508,385	522,451	525,314	523,532	527,878
MIL-C-29137	7,878	4,397	4,784	5,249	5,519	5,777	6,083
MIL-C-29147	895,011	394,184	410,084	423,304	424,798	421,843	424,407
MIL-C-29383	230,278	123,904	148,522	184,521	170,912	178,888	183,208
MIL-C-297	801,838	322,355	369,498	408,808	423,339	434,512	448,311
MIL-C-328	837,372	941,950	1,048,871	1,187,593	1,227,412	1,249,988	1,295,001
MIL-C-332	1,129,343	811,788	883,033	717,815	748,448	753,750	775,833
MIL-C-3395	13,551	7,578	8,310	9,153	9,647	9,784	10,148
MIL-C-342	3,838,575	2,181,458	2,308,080	2,412,010	2,450,175	2,480,893	2,502,722
MIL-C-3453	609,468	1,221,102	1,400,404	1,585,295	1,875,283	1,719,645	1,788,878
MIL-C-368	57,205	30,480	38,017	40,424	41,988	44,893	44,893
MIL-C-3738	103,738	57,385	82,123	87,219	89,884	70,580	72,658
MIL-C-3924	2,232,928	1,273,818	1,380,835	1,498,654	1,563,295	1,576,487	1,628,441
MIL-C-3953	1,025	1,025	1,028	1,025	1,025	1,025	1,025
MIL-C-40039	5,397	2,978	3,221	3,548	3,732	3,789	3,895
MIL-C-41808	41,103	23,228	25,251	27,373	28,183	28,502	30,574
MIL-C-41820	489,958	317,378	358,912	410,452	439,524	449,531	470,022
MIL-C-4277	131,239	131,239	131,239	131,239	131,239	131,239	131,239
MIL-C-43122	358,573	138,208	148,487	158,545	185,337	188,841	171,834
MIL-C-43128	388,200	240,015	282,408	288,784	300,089	303,920	313,978
MIL-C-43191	8,318,273	3,440,484	3,718,134	4,015,844	4,171,301	4,209,970	4,330,235
MIL-C-43204	187,308	94,842	103,510	118,005	118,037	118,482	123,301
MIL-C-43234	58,249	31,978	34,824	37,447	38,826	39,311	40,455
MIL-C-43251	793,288	391,983	428,819	487,353	523,387	533,808	558,129
MIL-C-43378	177,457	102,828	111,442	120,850	123,482	126,680	130,401
MIL-C-43488	4,097,991	2,680,032	2,828,328	2,939,104	2,978,832	2,988,180	3,038,278
MIL-C-43473	2,338,303	1,403,819	1,515,911	1,634,598	1,697,151	1,714,509	1,783,380
MIL-C-43478	2,269,544	1,383,485	1,481,683	1,568,451	1,596,541	1,607,485	1,637,873
MIL-C-43482	3,088,708	1,538,484	1,685,889	1,802,293	2,020,488	2,051,851	2,133,030
MIL-C-43525	402,334	208,783	228,835	257,597	274,287	278,712	290,182
MIL-C-43584	2,414,488	817,838	873,308	738,881	777,826	787,417	815,885
MIL-C-43800	50,820	33,470	37,738	43,208	48,353	47,372	49,560
MIL-C-43805	883,480	492,217	541,212	595,301	626,032	635,385	658,447
MIL-C-43827	4,735,678	2,722,083	2,972,335	3,255,478	3,419,665	3,482,355	3,580,584
MIL-C-43837	1,105,200	670,381	725,893	785,109	818,116	824,190	848,179
MIL-C-43875	88,049	34,743	38,684	44,498	48,122	49,020	51,408
MIL-C-43718	1,221,788	1,171,752	1,294,301	1,429,672	1,498,518	1,522,528	1,574,505
MIL-C-43734	12,983	11,058	12,229	13,678	14,499	14,738	15,323
MIL-C-43774	4,843	3,035	3,389	3,889	4,189	4,278	4,378
MIL-C-43791	70,551	37,558	40,042	42,881	44,426	44,815	45,670
MIL-C-43842	134,709	115,748	128,512	144,730	154,087	158,817	163,384
MIL-C-43843	1,241,741	782,808	815,991	882,070	917,268	928,420	953,588
MIL-C-43847	21,216	11,986	13,033	14,285	15,052	15,227	15,780
MIL-C-43874	23,040	12,894	14,138	15,517	16,363	16,557	17,185
MIL-C-43808	4,085,171	2,241,578	2,408,338	2,593,719	2,697,284	2,715,533	2,782,832
MIL-C-43920	818,290	330,285	358,154	380,683	388,131	390,064	388,771
MIL-C-43992	3,271,583	510,208	568,084	653,482	708,680	719,882	754,940
MIL-C-44031	28,595,592	17,274,873	18,721,378	20,268,328	21,078,928	21,283,187	21,808,789

KURT SALMON ASSOCIATES  
SCENARIO C

TYPE	SPECIFICATION NUMBER	SCENARIO A	M+6	M+12	M+18	M+24	M+30	M+36
B	MIL-C-44034	7,842	4,229	4,849	5,114	5,378	5,458	5,557
	MIL-C-44043	90,884	77,407	85,800	95,731	101,493	103,171	107,258
	MIL-C-44050	831,117	767,751	850,251	952,521	1,010,748	1,027,874	1,068,108
	MIL-C-483	271,934	162,751	178,911	193,864	204,219	208,588	214,012
	MIL-C-484	2,312,209	1,397,934	1,914,881	1,641,975	1,710,882	1,728,330	1,780,844
	MIL-C-608	1,357,203	805,821	884,080	972,933	1,022,281	1,038,722	1,073,238
	MIL-C-81251	250,860	148,889	181,218	174,370	181,257	183,050	188,318
	MIL-C-7020	1,070,409	1,088,784	1,088,885	1,088,918	1,088,928	1,088,958	1,088,978
	MIL-C-7218	1,191,728	832,850	727,511	785,897	818,348	824,088	847,658
	MIL-C-7350	6,854,887	4,307,370	4,825,532	4,965,358	5,143,158	5,188,358	5,328,280
	MIL-C-81514	185,423	88,493	92,383	94,428	94,847	94,488	95,387
	MIL-C-82252	34,891	18,577	22,010	24,742	25,714	26,628	27,557
	MIL-C-823	2,344,574	2,738,667	3,082,332	3,410,481	3,553,994	3,628,548	3,748,125
	MIL-C-83428	667,898	617,970	671,797	738,358	775,849	784,879	813,394
	MIL-C-83450	52,888	28,278	28,518	30,173	30,308	30,194	30,418
	MIL-C-87052	933,444	2,632,770	2,738,973	2,827,404	2,837,374	2,817,551	2,834,774
	MIL-F-43539	157,517	88,650	95,995	103,837	107,948	108,017	112,194
	MIL-T-43584	255,808,928	39,308,714	44,437,589	51,116,830	55,278,847	58,310,753	59,053,118
	MIL-T-43718	35,818	18,719	20,843	23,976	25,928	28,412	27,898
	MIL-W-844	3,049,880	2,099,890	2,247,182	2,387,859	2,458,287	2,470,840	2,528,188
		7,852,373	6,708,178	7,377,427	7,387,945	7,728,785	7,884,861	8,177,048
B	**TOTAL	388,358,398	128,215,952	141,500,328	158,318,272	164,818,805	168,888,529	172,840,853
K	KSA-C-1000	135,300	75,888	80,572	83,898	84,580	84,889	88,083
	KSA-K-1000	890	5,462,318	5,914,347	6,398,657	6,849,310	6,715,071	6,910,521
	KSA-K-2000	828,221	332,514	419,888	484,078	487,548	494,043	510,907
	KSA-K-3000	1,868,958	1,038,197	1,125,188	1,218,937	1,284,998	1,277,508	1,314,835
	KSA-K-4000	84,871	38,369	39,378	42,589	44,270	44,708	46,008
	KSA-K-5000	885	358	370	382	383	384	384
	KSA-K-6000	18,021	9,242	9,920	10,893	11,120	11,195	11,514
	KSA-K-8000	11,374	6,275	6,784	7,348	7,838	7,713	7,938
	KSA-K-900	1,440	797	867	950	1,001	1,013	1,049
	KSA-Y-1000	1,514,817,600	788,739,090	850,888,558	918,745,490	954,108,658	982,186,488	990,702,344
	KSA-Y-2000	15,143,226	11,617,319	12,588,488	13,681,631	14,241,347	14,382,837	14,804,184
	KSA-Y-3000	88,153	55,948	60,576	65,516	68,103	68,777	70,778
	LPP-DES12-80	26,138	17,213	18,408	22,220	23,838	24,363	25,488
	MIL-C-17155	721,708	438,760	483,149	485,622	491,825	492,684	499,275
	MIL-C-17157	1,338,726	849,810	911,445	981,499	1,020,284	1,027,350	1,058,399
	MIL-C-3735	4,156,544	2,487,677	2,871,434	2,855,428	2,844,454	2,865,044	3,037,481
	MIL-C-41831	21,402	14,289	15,370	16,243	16,477	16,588	16,848
	MIL-C-43247	109,753	64,120	68,608	75,497	78,834	75,481	81,893
	MIL-C-43352	6,170	1,258	1,388	1,497	1,577	1,598	1,654
	MIL-C-43358	175,107	108,926	114,140	123,573	128,504	129,782	134,557
	MIL-C-43824	18,238	10,879	11,820	12,948	13,837	13,795	14,292
	MIL-C-43858	1,850,283	5,433,102	5,973,983	6,571,017	6,910,225	7,013,479	7,268,038
	MIL-C-43892	1,858,573	6,109,178	6,718,227	7,387,017	7,788,785	7,884,881	8,171,048
	MIL-C-43928	337,508	177,487	187,623	227,327	245,838	250,428	262,822
	MIL-C-43983	799,784	518,403	558,048	631,848	665,724	674,845	698,878
	MIL-C-6590	248,188	147,411	159,784	174,241	182,992	184,937	191,331
	MIL-C-8061	408	253	277	307	322	327	338

KURT SALMON ASSOCIATES  
SCENARIO C

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SPECIFICATION NUMBER	SCENARIO A				SCENARIO B				SCENARIO C			
	M+8	M+12	M+18	M+24	M+30	M+36	M+42	M+48	M+54	M+60	M+66	M+72
K MIL-C-81393	930	563	635	727	780	797	833	833	833	833	833	833
MIL-C-83298	89,828	37,039	38,838	39,301	39,481	39,413	39,900	39,900	39,900	39,900	39,900	39,900
MIL-G-3888	409,940	228,420	251,158	276,258	290,520	294,880	305,582	305,582	305,582	305,582	305,582	305,582
K **TOTAL	1,544,504,303	822,085,898	889,319,225	980,598,984	997,793,858	1,007,369,187	1,038,272,831	1,038,272,831	1,038,272,831	1,038,272,831	1,038,272,831	1,038,272,831
M KSA-NW-100	23,470	42,517	44,599	45,147	45,380	45,288	45,852	45,852	45,852	45,852	45,852	45,852
M **TOTAL	23,470	42,517	44,599	45,147	45,380	45,288	45,852	45,852	45,852	45,852	45,852	45,852
N DDD-T-88	2,985,408	2,231,987	2,401,881	2,573,445	2,680,188	2,717,732	2,717,732	2,717,732	2,717,732	2,717,732	2,717,732	2,717,732
KSA-R-1000	8,080	297,718	320,213	338,385	343,281	345,553	350,388	350,388	350,388	350,388	350,388	350,388
KSA-T-2000	557,001	8,328	9,272	10,888	11,534	11,750	12,322	12,322	12,322	12,322	12,322	12,322
KSA-T-3000	48,344	138,138	153,810	176,928	181,334	184,908	204,388	204,388	204,388	204,388	204,388	204,388
KSA-T-4000	283,188	5,205	5,795	6,688	7,209	7,344	7,701	7,701	7,701	7,701	7,701	7,701
KSA-W-1000	30,840	253,125	281,843	324,205	350,803	357,147	374,541	374,541	374,541	374,541	374,541	374,541
MIL-B-571	14,632,818	18,275,508	18,685,886	18,154,432	18,687,854	18,202,700	18,628,208	18,628,208	18,628,208	18,628,208	18,628,208	18,628,208
MIL-W-583	1,184,198	809,074	880,031	981,773	1,008,751	1,018,287	1,051,534	1,051,534	1,051,534	1,051,534	1,051,534	1,051,534
MIL-C-7040	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030
MIL-F-21840	8,483,733	4,182,871	4,545,041	4,950,354	5,178,870	5,238,248	5,410,783	5,410,783	5,410,783	5,410,783	5,410,783	5,410,783
MIL-T-2283	208,883	111,117	1,514	117,903	118,442	118,239	119,699	119,699	119,699	119,699	119,699	119,699
MIL-T-43588	17,475,818	18,034,191	18,390,191	17,873,953	18,882,887	18,907,387	19,520,380	19,520,380	19,520,380	19,520,380	19,520,380	19,520,380
MIL-T-43708	18,793	7,873	8,883	10,154	10,808	11,139	11,858	11,858	11,858	11,858	11,858	11,858
MIL-T-5038	5,437,838	3,382,840	3,831,595	3,919,281	4,089,884	4,108,483	4,224,540	4,224,540	4,224,540	4,224,540	4,224,540	4,224,540
MIL-T-5237	50,818	48,804	52,898	58,391	57,329	57,828	58,852	58,852	58,852	58,852	58,852	58,852
MIL-T-5681	33,058	32,743	32,788	32,772	32,772	32,774	32,780	32,780	32,780	32,780	32,780	32,780
MIL-T-8134	47,138	47,138	47,138	47,138	47,138	47,138	47,138	47,138	47,138	47,138	47,138	47,138
MIL-T-8383	185	111	117	118	118	118	118	118	118	118	118	118
MIL-W-17337	53,801	41,581	45,854	51,092	54,098	54,950	57,091	57,091	57,091	57,091	57,091	57,091
MIL-W-27285	579,742	538,820	541,413	546,208	548,717	549,371	551,313	551,313	551,313	551,313	551,313	551,313
MIL-W-4088	7,048,193	4,081,887	4,425,927	4,808,180	5,010,008	5,087,217	5,220,993	5,220,993	5,220,993	5,220,993	5,220,993	5,220,993
MIL-W-43568	291	291	281	281	281	281	281	281	281	281	281	281
MIL-W-43638	2,599,893	1,488,482	1,631,184	1,799,032	1,893,307	1,920,008	1,989,112	1,989,112	1,989,112	1,989,112	1,989,112	1,989,112
MIL-W-43688	3,155,803	1,477,147	1,800,847	1,733,100	1,802,224	1,819,887	1,873,182	1,873,182	1,873,182	1,873,182	1,873,182	1,873,182
MIL-W-43685	395,507	222,029	244,483	288,574	283,678	288,235	298,888	298,888	298,888	298,888	298,888	298,888
MIL-W-43888	380,497	211,209	228,845	249,578	259,885	261,812	270,493	270,493	270,493	270,493	270,493	270,493
MIL-W-5038	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252
MIL-W-530	12,824,245	7,472,058	8,142,638	8,895,402	9,320,853	9,432,851	9,748,572	9,748,572	9,748,572	9,748,572	9,748,572	9,748,572
MIL-W-5825	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858
MIL-W-5864	879,499	335,787	385,738	398,311	418,287	421,327	435,004	435,004	435,004	435,004	435,004	435,004
MIL-W-5885	469,447	285,255	291,885	298,013	302,771	303,724	308,611	308,611	308,611	308,611	308,611	308,611
PPP-T-80	393	393	393	393	393	393	393	393	393	393	393	393
N **TOTAL	80,610,258	81,833,899	88,700,430	72,242,884	75,249,891	78,076,218	78,357,870	78,357,870	78,357,870	78,357,870	78,357,870	78,357,870
T C-T-301	11,094	377	419	483	522	532	557	557	557	557	557	557
KSA-T-1000	172,584	92,058	109,070	122,805	127,424	131,842	138,704	138,704	138,704	138,704	138,704	138,704
MIL-T-34548	317,520	170,472	184,751	200,018	207,888	210,030	216,184	216,184	216,184	216,184	216,184	216,184
MIL-T-43548	8,070,255,420	5,829,020,917	6,074,754,918	6,535,523,308	6,785,788,193	6,488,885,223	7,004,304,941	7,004,304,941	7,004,304,941	7,004,304,941	7,004,304,941	7,004,304,941

KURT SALMON ASSOCIATES  
SCENARIO C

SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+16	M+24	M+30	M+36
T							
MIL-T-43624	54,588,080	9,586,065	10,423,040	11,082,151	11,403,891	11,491,297	11,782,329
MIL-T-43638	30,478,823	24,478,827	27,187,154	30,408,989	32,237,533	32,787,389	34,083,951
MIL-T-83183	67,581,078	58,855,304	63,485,013	68,638,883	71,878,785	72,308,415	74,583,047
V-B-871	183,200	120,801	130,805	141,475	147,083	148,618	152,840
V-T-278	1,523,441,828	1,285,901,025	1,424,217,820	1,547,431,158	1,800,915,619	1,827,758,214	1,874,827,953
V-T-280	35,881,088	27,573,468	28,984,812	32,503,584	33,781,438	34,185,048	35,159,383
V-T-285	1,208,240,184	898,808,828	759,788,814	827,815,729	884,386,795	874,004,811	901,808,598
V-T-295	478,604,828	310,837,180	334,890,001	359,838,388	372,348,010	375,651,032	385,882,848
V-T-301	10,046,052	24,859,441	28,218,178	31,589,292	33,872,045	34,748,424	36,191,848
V-T-385	62,368,400	32,180,185	34,288,311	35,615,722	35,987,544	36,097,447	36,816,434
T **TOTAL	1,588,475,626	8,102,818,910	8,787,872,707	9,481,119,743	9,822,857,887	9,888,058,332	10,186,208,228
W							
MIL-B-87019	47,552	25,551	26,582	27,140	27,537	27,348	27,512
MIL-C-43685	31,843	17,245	20,368	22,850	23,730	24,551	25,423
MIL-C-43838	38,045	18,408	17,904	19,871	20,621	20,872	21,587
W **TOTAL	117,440	59,202	64,852	69,881	71,888	72,789	74,502
Z							
C-F-208	1,073	590	836	873	883	887	898
DD-L-20	3,788,544	2,381,512	2,587,218	2,765,787	2,874,895	2,903,422	2,987,921
DD-L-20	57,295,918	40,114,858	43,879,415	47,312,251	49,118,871	49,880,881	51,121,881
JU-W-155	31,488,828	20,028,370	21,717,958	23,522,105	24,473,635	24,728,449	25,483,981
KK-L-2004	12,827	8,078	8,780	8,410	8,849	8,846	10,338
KK-L-271	15,282	8,588	9,308	10,077	10,479	10,882	10,882
KSA-K-7000	655,304	268,489	282,584	321,281	337,590	342,845	354,942
KSA-N-1000	4,242	2,842	2,842	3,004	3,048	3,088	3,117
KSA-PC-100	28,488	14,988	16,888	18,187	20,744	21,131	22,187
KSA-PP-100	5,332	3,580	3,828	4,048	4,105	4,132	4,187
L-S-125	588,520	335,588	365,174	398,085	418,544	423,384	437,748
LPP-DE58-78	99,732	57,714	63,459	69,801	73,405	74,502	77,208
MIL-B-17757	170,115	85,795	103,818	112,401	118,888	118,032	121,482
MIL-B-41826	7,208,298	4,182,732	4,531,915	4,907,352	5,108,223	5,157,659	5,310,833
MIL-B-61813	107,195	52,708	58,830	60,868	62,847	63,375	65,002
MIL-C-15085	154,704	487,108	582,863	638,382	674,086	693,345	721,882
MIL-C-1734	2,580	1,781	2,121	2,385	2,478	2,568	2,659
MIL-C-43258	755,378	424,051	480,878	500,445	521,833	527,431	543,738
MIL-C-43203	2,389,324	1,711,949	1,880,712	2,024,421	2,113,382	2,138,889	2,204,222
MIL-C-43424	23,874	14,014	16,030	18,185	18,825	18,842	17,431
MIL-C-43878	1,288,882	728,080	788,181	850,351	883,959	892,708	918,704
MIL-C-43701	57,137	31,825	34,441	37,495	39,150	39,603	40,882
MIL-C-5040	4,008,782	3,625,370	3,670,353	3,720,407	3,748,180	3,754,988	3,775,845
MIL-C-7515	2,728,578	2,688,708	2,894,573	2,898,948	2,702,999	2,703,928	2,708,218
MIL-C-83242	80,878	43,158	45,052	48,050	48,254	48,084	48,519
MIL-H-41802	139,638	314,652	348,048	394,730	423,110	430,159	448,302
MIL-L-11075	14,880	8,471	9,208	10,090	10,830	11,143	11,143
MIL-L-15040	80,960	322,094	381,813	428,988	445,827	481,637	478,298
MIL-L-1870	37,200	21,176	23,020	25,228	26,574	26,882	27,857
MIL-L-1709	232,427	132,200	146,572	161,628	169,738	172,878	178,942
MIL-L-40051	47,278	26,263	28,435	30,752	31,960	32,282	33,231

## SCENARIO C

SPECIFICA- TION NUMBER	SCENARIO A	M+8					M+12					M+18					M+24					M+30					M+36				
		M+8					M+12					M+18					M+24					M+30					M+36				
7	MIL-L-40089	1,800	1,078	1,217	1,393	1,485	1,217	1,393	1,485	1,528	1,528	1,393	1,485	1,528	1,528	1,528	1,485	1,528	1,528	1,528	1,528	1,528	1,528	1,528	1,528	1,528	1,528	1,528	1,528	1,528	1,528
	MIL-P-15084	890,884	1,237,262	1,421,059	1,598,811	1,979,091	1,421,059	1,598,811	1,979,091	1,724,140	1,724,140	1,598,811	1,979,091	1,724,140	1,724,140	1,724,140	1,979,091	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140	1,724,140
	MIL-R-1870	158,000	83,377	104,808	119,808	128,060	104,808	119,808	128,060	130,746	130,746	119,808	128,060	130,746	130,746	130,746	128,060	130,746	130,746	130,746	130,746	130,746	130,746	130,746	130,746	130,746	130,746	130,746	130,746	130,746	130,746
	MIL-R-17343	1,875,000	381,523	397,509	437,238	459,808	397,509	437,238	459,808	483,818	483,818	437,238	459,808	483,818	483,818	483,818	459,808	483,818	483,818	483,818	483,818	483,818	483,818	483,818	483,818	483,818	483,818	483,818	483,818	483,818	483,818
	MIL-R-24049	8,750,000	1,301,483	1,431,033	1,574,050	1,955,307	1,431,033	1,574,050	1,955,307	1,880,037	1,880,037	1,574,050	1,955,307	1,880,037	1,880,037	1,880,037	1,955,307	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037	1,880,037
	MIL-R-30500	4,989,083	1,135,839	1,251,017	1,380,450	1,454,141	1,251,017	1,380,450	1,454,141	1,478,683	1,478,683	1,380,450	1,454,141	1,478,683	1,478,683	1,478,683	1,454,141	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683	1,478,683
	MIL-S-3577	388,851	203,420	228,322	230,044	281,018	228,322	230,044	281,018	288,195	288,195	230,044	281,018	288,195	288,195	288,195	281,018	288,195	288,195	288,195	288,195	288,195	288,195	288,195	288,195	288,195	288,195	288,195	288,195	288,195	288,195
	MIL-S-43358	199,484	449,503	497,211	583,900	804,443	497,211	583,900	804,443	814,571	814,571	583,900	804,443	814,571	814,571	814,571	804,443	814,571	814,571	814,571	814,571	814,571	814,571	814,571	814,571	814,571	814,571	814,571	814,571	814,571	814,571
	MIL-S-43993	7,028	17,740	19,285	21,040	22,089	19,285	21,040	22,089	22,338	22,338	21,040	22,089	22,338	22,338	22,338	22,089	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338
	MIL-S-8790	28,773	17,740	19,285	21,040	22,089	19,285	21,040	22,089	22,338	22,338	21,040	22,089	22,338	22,338	22,338	22,089	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338	22,338
	MIL-T-40825	300,144	182,971	190,285	200,945	212,718	190,285	200,945	212,718	218,257	218,257	200,945	212,718	218,257	218,257	218,257	212,718	218,257	218,257	218,257	218,257	218,257	218,257	218,257	218,257	218,257	218,257	218,257	218,257	218,257	218,257
	T-C-571	811,340	353,888	388,817	450,244	453,787	388,817	450,244	453,787	480,435	480,435	450,244	453,787	480,435	480,435	480,435	453,787	480,435	480,435	480,435	480,435	480,435	480,435	480,435	480,435	480,435	480,435	480,435	480,435	480,435	480,435
	T-R-803	8,072	1,375	1,829	1,831	1,904	1,829	1,831	1,904	1,971	1,971	1,831	1,904	1,971	1,971	1,971	1,904	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971
	T-R-818	3,980	102	121	138	142	121	138	142	147	147	138	142	147	147	147	142	147	147	147	147	147	147	147	147	147	147	147	147	147	147
	T-T-871	1,045,844	571,874	623,880	681,889	713,480	623,880	681,889	713,480	722,130	722,130	681,889	713,480	722,130	722,130	722,130	713,480	722,130	722,130	722,130	722,130	722,130	722,130	722,130	722,130	722,130	722,130	722,130	722,130	722,130	722,130
	T-T-881	22,843	11,871	13,254	15,188	18,374	13,254	15,188	18,374	18,892	18,892	15,188	18,374	18,892	18,892	18,892	18,374	18,892	18,892	18,892	18,892	18,892	18,892	18,892	18,892	18,892	18,892	18,892	18,892	18,892	18,892
	T-T-911	893,872	485,881	531,054	581,781	609,468	531,054	581,781	609,468	617,227	617,227	581,781	609,468	617,227	617,227	617,227	609,468	617,227	617,227	617,227	617,227	617,227	617,227	617,227	617,227	617,227	617,227	617,227	617,227	617,227	617,227
	V-F-103	154,200	28,024	28,878	33,331	38,045	28,878	33,331	38,045	38,718	38,718	33,331	38,045	38,718	38,718	38,718	38,045	38,718	38,718	38,718	38,718	38,718	38,718	38,718	38,718	38,718	38,718	38,718	38,718	38,718	38,718
	V-L-81	1,418,410	817,300	884,358	958,188	983,888	884,358	958,188	983,888	1,003,578	1,003,578	958,188	983,888	1,003,578	1,003,578	1,003,578	983,888	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578	1,003,578
2	**TOTAL	132,880,180	85,344,187	92,481,267	89,982,889	103,812,190	92,481,267	89,982,889	103,812,190	104,968,880	104,968,880	89,982,889	103,812,190	104,968,880	104,968,880	104,968,880	103,812,190	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880	104,968,880

KURT SALMON ASSOCIATES  
SCENARIO D

SPECIFICA- TION NUMBER	SCENARIO A	M+6	M+12	M+18	M+24	M+30	M+36
CCC-C-41	24,174	21,155	34,515	47,876	61,237	74,598	87,959
CCC-C-419	3,748,178	3,180,058	5,188,560	7,153,064	9,129,587	11,128,070	13,112,570
CCC-C-428	284,566	230,503	378,032	521,664	667,244	812,823	958,454
CCC-C-428	528	20	33	45	58	71	84
CCC-C-429	1,207,068	954,937	1,558,053	2,101,187	2,784,284	3,387,401	3,970,517
CCC-C-430	1,130,865	882,839	1,156,766	2,020,635	2,584,533	3,148,431	3,712,328
CCC-C-432	38,048	60,355	89,847	108,831	128,323	148,315	168,307
CCC-C-438	3,778,132	3,187,870	5,217,250	7,238,831	9,258,413	11,275,993	13,295,573
CCC-C-438	67,648	58,919	97,784	135,607	173,452	211,295	249,138
CCC-C-440	7,583	6,594	10,759	14,923	19,088	23,253	27,417
CCC-C-441	621	495	808	1,121	1,434	1,747	2,059
CCC-C-446	72,870	89,010	112,595	158,180	199,768	243,351	288,938
CCC-C-461	873	705	1,150	1,595	2,040	2,485	2,930
CCC-C-467	2,948,040	2,483,888	4,020,013	5,578,190	7,132,337	8,686,480	10,244,629
CCC-C-476	1,988	1,882	2,714	3,608	4,502	5,396	6,290
KSA-B-1000	10,462	10,765	17,585	24,364	31,183	37,982	44,781
KSA-C-1100	1,234	310	508	701	897	1,093	1,289
KSA-C-1200	1,044,414	840,455	1,371,268	1,802,083	2,432,897	3,063,711	3,694,525
KSA-C-2000	1,442,828	998,724	1,626,235	2,255,748	2,885,255	3,514,768	4,144,276
KSA-C-4000	81	68	111	155	198	241	284
KSA-C-5000	1,834	1,464	2,338	3,222	4,249	5,178	6,103
LPP-DES13-80	10,184	8,845	16,228	22,807	28,788	35,089	41,350
LPP-DES18-73	987,173	985,987	1,576,050	2,186,135	2,796,220	3,406,303	4,016,387
LPP-DES23-73	474,653	420,806	666,578	952,350	1,218,123	1,483,884	1,749,667
LPP-DES32-75	698,124	604,076	985,598	1,367,120	1,748,642	2,130,183	2,511,685
MIL-C-10298	4,512,328	4,114,517	6,713,160	9,311,802	11,910,445	14,509,088	17,107,730
MIL-C-10788	12,468	13,570	17,245	23,822	30,597	37,273	43,948
MIL-C-10859	2,288,920	1,893,228	3,088,953	4,284,875	5,480,400	6,675,925	7,871,844
MIL-C-11065	958,870	817,902	1,334,472	1,851,042	2,367,611	2,884,181	3,400,750
MIL-C-12085	1,024,188	882,659	1,440,193	1,997,838	2,555,182	3,112,677	3,670,189
MIL-C-12189	3,088,303	2,846,451	4,644,210	6,441,989	8,239,728	10,037,488	11,835,245
MIL-C-12389	515,121	1,032,948	1,885,337	2,337,725	2,990,112	3,642,501	4,294,888
MIL-C-15062	3,988	3,140	5,123	7,108	9,089	11,071	13,054
MIL-C-16290	330,335	288,204	470,227	652,251	834,275	1,016,298	1,198,322
MIL-C-18375	190,551	167,484	273,263	379,043	484,822	590,601	698,381
MIL-C-19002	825	750	1,224	1,898	2,172	2,646	3,120
MIL-C-19699	2,851	2,514	4,102	5,890	7,278	8,668	10,054
MIL-C-19758	953,300	822,157	1,341,415	1,860,872	2,379,929	2,899,185	3,418,443
MIL-C-20698	21,682	18,123	29,588	41,015	52,481	63,907	75,353
MIL-C-21115	227,379	178,845	291,474	404,302	517,131	629,959	742,788
MIL-C-2154	8,584	7,301	11,911	16,522	21,133	25,744	30,355
MIL-C-21852	85,121	66,048	107,769	149,473	191,185	232,898	274,612
MIL-C-23928	825	750	1,224	1,898	2,172	2,646	3,120
MIL-C-26118	37,888	38,374	58,348	82,321	105,294	128,267	151,240
MIL-C-29127	25,872	24,610	39,890	58,470	70,950	86,430	101,910
MIL-C-29137	7,975	6,683	10,905	15,125	19,347	23,568	27,789
MIL-C-29147	895,011	818,540	1,005,934	1,385,328	1,784,722	2,174,116	2,563,510
MIL-C-297	288,404	234,458	382,536	530,815	678,694	826,772	974,851
MIL-C-328	47,933	41,048	68,973	92,898	118,823	144,749	170,674

SPECIFICA-  
TION NUMBER

SCENARIO A

M+8

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B	MIL-C-332	1,128,343	928,031	1,510,883	2,095,755	2,880,817	3,285,479	3,850,341
	MIL-C-3385	13,551	11,338	18,800	25,882	32,823	39,824	47,145
	MIL-C-342	3,838,578	3,301,103	5,388,010	7,470,817	9,555,825	11,640,731	13,725,838
	MIL-C-3453	878	878	878	878	878	878	878
	MIL-C-388	128,309	100,815	184,880	228,388	282,121	359,857	419,592
	MIL-C-3780	103,738	86,882	141,732	19,562	251,441	308,301	381,161
	MIL-C-3824	2,232,928	1,824,078	3,139,287	4,374,484	5,569,703	6,784,911	8,000,119
	MIL-C-3953	1,025	1,025	1,025	1,025	1,025	1,025	1,025
	MIL-C-40038	5,397	4,528	7,388	10,248	13,107	15,967	18,827
	MIL-C-41808	41,108	34,808	56,789	78,772	100,755	122,738	144,721
	MIL-C-41820	455,087	443,911	724,278	1,004,841	1,285,005	1,565,270	1,845,735
	MIL-C-4277	131,236	131,236	131,236	131,236	131,236	131,236	131,236
	MIL-C-43122	356,573	208,840	338,985	487,431	597,878	728,323	858,789
	MIL-C-43128	388,200	381,397	589,850	817,901	1,048,152	1,274,403	1,502,855
	MIL-C-43181	8,318,273	5,215,854	8,510,077	11,304,301	15,098,838	18,882,746	21,886,873
	MIL-C-43204	187,308	143,120	233,511	323,902	414,294	504,684	595,074
	MIL-C-43234	58,248	48,427	78,013	108,598	140,185	170,770	201,358
	MIL-C-43251	725,348	515,013	840,285	1,185,558	1,490,827	1,818,099	2,141,371
	MIL-C-43378	177,457	155,844	253,945	352,247	450,548	548,850	647,152
	MIL-C-43488	4,097,991	4,059,607	6,817,043	9,178,478	11,739,915	14,301,350	16,862,788
	MIL-C-43473	2,438,303	2,128,118	3,473,824	4,818,850	6,163,238	7,507,942	8,852,648
	MIL-C-43479	2,001,830	1,895,811	3,083,185	4,280,518	5,487,873	6,695,227	7,882,581
	MIL-C-43482	2,502,480	1,932,503	3,153,032	4,373,559	5,594,089	6,814,818	8,035,145
	MIL-C-43525	388,577	283,786	483,025	642,258	821,484	1,000,730	1,178,985
	MIL-C-43594	172,194	372,108	807,124	842,140	1,077,155	1,312,170	1,547,188
	MIL-C-43800	50,820	49,725	81,130	112,938	143,941	175,348	208,751
	MIL-C-43805	883,480	735,988	1,200,822	1,683,857	2,130,481	2,565,328	3,060,180
	MIL-C-43827	4,733,830	4,098,219	6,883,303	9,270,380	11,857,475	14,444,559	17,031,845
	MIL-C-43837	1,105,200	1,015,194	1,558,389	2,297,925	2,938,720	3,578,898	4,221,071
	MIL-C-43718	455,850	408,731	688,508	927,244	1,188,081	1,444,538	1,703,618
	MIL-C-43724	12,883	18,573	27,040	37,507	47,974	58,441	68,908
	MIL-C-43774	4,843	4,498	7,339	10,180	13,022	15,863	18,704
	MIL-C-43781	70,551	57,812	94,324	130,837	167,350	203,862	240,375
	MIL-C-43842	134,709	173,101	282,428	381,733	501,080	610,408	719,732
	MIL-C-43843	1,230,178	1,129,599	1,843,031	2,558,482	3,289,893	3,983,324	4,698,758
	MIL-C-43847	21,218	17,865	29,311	40,557	52,003	63,349	74,695
	MIL-C-43874	23,040	19,488	31,783	44,058	58,354	74,695	80,848
	MIL-C-43892	1,858,573	9,133,280	14,901,833	20,670,088	28,438,383	32,208,757	37,925,132
	MIL-C-43908	4,085,171	3,402,118	5,550,823	7,698,528	9,848,238	11,998,941	14,145,647
	MIL-C-43920	28,595,592	28,147,416	42,881,574	59,175,732	75,889,890	92,204,048	108,718,208
	MIL-C-44031	7,842	6,323	10,318	14,309	18,303	22,288	28,288
	MIL-C-44043	80,804	118,010	189,280	282,549	335,819	408,088	482,358
	MIL-C-44050	931,117	1,148,978	1,878,281	2,802,532	3,328,884	4,055,187	4,781,489
	MIL-C-483	271,934	243,908	397,954	552,001	708,048	860,098	1,014,143
	MIL-C-484	2,312,488	2,112,551	3,446,792	4,781,035	6,115,277	7,448,520	8,783,782
	MIL-C-508	1,357,194	1,210,584	1,975,187	2,739,715	3,504,328	4,288,909	5,033,491
	MIL-C-51251	250,860	225,471	387,874	510,277	652,850	795,083	937,488
	MIL-C-7020	1,070,409	1,070,038	1,072,405	1,074,778	1,077,144	1,078,514	1,081,883
	MIL-C-7219	1,191,728	1,010,063	1,837,318	2,284,565	2,891,818	3,518,085	4,148,317

SPECIFICA- TION NUMBER	SCENARIO A	M:8	M:12	M:18	M:24	M:30	M:36
B							
MIL-C-7350	8,954,867	8,271,216	9,924,893	13,578,150	17,231,817	20,885,082	24,538,549
MIL-C-81814	185,423	138,215	222,247	308,278	394,308	480,339	566,371
MIL-C-823	483,687	412,647	673,265	933,884	1,194,502	1,455,122	1,716,740
MIL-C-83429	987,698	925,997	1,510,837	2,085,877	2,680,517	3,265,357	3,850,187
MIL-C-83450	52,999	43,525	71,014	98,504	125,983	153,483	180,972
MIL-F-43539	157,517	134,245	218,032	303,818	388,605	473,381	558,178
MIL-W-844	3,049,890	3,188,539	5,215,405	7,234,272	9,253,139	11,272,005	13,280,872
**TOTAL	121,732,171	118,030,425	181,478,489	264,928,549	338,374,824	411,822,865	485,270,731
K							
KSA-C-1000	135,300	115,772	188,892	282,011	335,130	408,249	481,389
KSA-K-1000	680	8,271,685	13,486,387	18,720,808	23,845,220	28,189,832	34,384,043
KSA-K-2000	829,221	580,822	947,858	1,314,491	1,681,325	2,048,180	2,414,995
KSA-K-3000	1,888,959	1,573,738	2,587,877	3,581,817	4,555,557	5,549,498	6,543,438
KSA-K-4000	64,671	55,078	89,581	124,846	159,431	194,216	229,001
KSA-K-8000	18,021	14,027	22,886	31,746	40,605	49,484	58,324
KSA-K-8000	11,374	8,502	15,504	21,505	27,507	33,508	39,510
KSA-K-800	1,440	1,195	1,849	2,704	3,458	4,213	4,967
KSA-Y-2000	15,143,228	17,849,795	28,787,035	38,944,273	51,091,513	62,238,752	73,385,991
KSA-Y-3000	88,153	84,724	138,234	181,743	245,253	298,783	352,273
LPP-DES12-80	28,138	25,673	41,724	57,875	74,027	90,178	106,329
MIL-C-17155	721,708	678,283	1,103,410	1,530,538	1,957,682	2,384,787	2,811,918
MIL-C-17157	1,238,728	1,200,428	2,105,432	2,920,439	3,735,445	4,550,451	5,365,457
MIL-C-3735	4,138,844	3,788,835	6,183,086	8,578,541	10,968,998	13,363,448	15,758,901
MIL-C-41831	21,402	22,022	35,931	48,840	63,748	77,658	91,567
MIL-C-43247	108,753	98,900	158,100	219,299	280,498	341,698	402,897
MIL-C-43352	6,170	1,882	3,071	4,260	5,449	6,638	7,827
MIL-C-43358	175,107	181,808	280,089	380,768	481,448	582,127	682,802
MIL-C-43624	18,238	16,307	28,808	38,905	47,203	57,503	67,802
MIL-C-43858	1,650,283	8,123,835	13,254,878	18,385,521	23,516,384	28,647,207	33,778,050
MIL-C-43983	711,312	714,448	1,185,878	1,616,905	2,068,134	2,519,383	2,970,593
MIL-C-8590	248,189	221,345	381,142	500,940	640,737	780,533	920,330
MIL-C-8081	408	383	625	867	1,108	1,350	1,592
MIL-C-81393	930	838	1,384	1,892	2,421	2,949	3,477
MIL-C-83398	69,828	58,030	91,418	128,806	162,193	197,581	232,968
MIL-G-3558	408,840	341,548	557,280	772,974	988,886	1,204,400	1,420,114
**TOTAL	27,403,507	43,895,893	71,815,708	98,337,912	127,080,119	154,782,324	182,509,148
M							
KSA-NW-100	23,470	84,312	104,930	145,548	186,187	228,785	267,403
**TOTAL	23,470	84,312	104,930	145,548	186,187	228,785	267,403
N							
DDO-T-88	914,718	805,849	1,314,808	1,823,783	2,332,722	2,841,878	3,350,834
JJ-W-188	31,404,888	30,236,841	48,333,858	68,430,878	87,527,950	106,626,005	126,722,023
KSA-T-3000	48,344	12,397	20,227	28,057	35,886	43,718	51,548
KSA-T-4000	283,188	205,843	335,522	485,402	595,281	728,181	855,040
KSA-W-1000	30,840	7,748	12,842	17,535	22,429	27,322	32,216
MIL-B-371	14,872,881	22,923,538	37,401,551	51,879,574	68,357,590	80,835,608	95,313,831
MIL-B-593	1,120,402	1,027,712	1,676,793	2,325,874	2,974,958	3,624,037	4,273,118

## SCENARIO D

SPECIFICA-  
TION NUMBER

SCENARIO A

M+8

M+12

M+18

M+24

M+30

M+36

TYPE	SCENARIO A	M+8	M+12	M+18	M+24	M+30	M+36
N	MIL-C-7040	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030	3,821,030
	MIL-F-21840	8,492,853	8,294,887	10,288,582	18,218,448	22,183,388	26,170,313
	MIL-T-3283	208,863	274,264	380,417	488,518	592,742	698,905
	MIL-T-43588	17,348,085	38,908,897	81,198,208	85,483,523	79,770,833	94,059,151
	MIL-T-43709	18,795	11,700	28,478	33,859	41,280	48,849
	MIL-T-5034	8,437,838	5,009,240	8,073,481	14,201,857	17,268,187	20,330,433
	MIL-T-5881	33,058	32,987	33,442	33,452	34,807	35,262
	MIL-T-6134	47,138	47,138	47,138	47,138	47,138	47,138
	MIL-T-6363	185	185	274	487	593	689
	MIL-W-17337	53,801	82,310	101,884	180,371	219,724	259,080
	MIL-W-27265	879,742	804,853	888,731	720,870	772,809	824,548
	MIL-W-4088	7,048,183	8,011,785	9,825,412	18,852,703	20,468,318	24,078,997
	MIL-W-43568	291	291	291	291	291	291
	MIL-W-43838	2,599,693	2,231,774	3,841,315	8,480,402	7,889,940	9,279,484
	MIL-W-43888	3,155,803	2,235,863	3,847,987	8,472,238	7,884,382	9,268,488
	MIL-W-43885	398,507	331,888	541,469	880,873	1,170,274	1,379,874
	MIL-W-43888	380,497	319,137	520,897	923,818	1,328,938	1,328,938
	MIL-W-5038	4,252	4,252	4,252	4,252	4,252	4,252
	MIL-W-530	12,894,445	11,297,395	18,432,552	32,702,893	39,838,178	48,973,378
	MIL-W-5828	10,858	10,858	10,858	10,858	10,858	10,858
	MIL-W-5884	878,498	808,580	1,144,133	1,483,488	1,782,788	2,102,089
	MIL-W-8685	489,447	325,783	478,888	552,147	627,808	703,089
	PPP-T-60	393	393	393	393	393	393
N	**TOTAL	108,703,389	118,928,527	187,711,484	329,279,499	400,083,498	470,649,503
Y	C-T-301	11,084	581	1,289	1,824	1,918	2,332
	MIL-T-34548	317,820	258,031	583,903	748,931	909,898	1,072,865
	MIL-T-43548	8,348,308,232	8,712,953,851	10,952,608,229	19,432,043,304	23,871,781,850	27,301,745,771
	MIL-T-43824	48,875,320	8,881,555	14,480,858	25,709,785	31,318,188	38,828,872
	MIL-T-43836	30,478,823	38,877,123	60,887,938	108,749,585	130,040,378	153,331,192
	MIL-T-83193	95,951,078	38,737,703	144,782,589	258,872,299	312,817,183	388,982,028
	V-B-871	183,200	182,938	298,478	528,552	645,091	760,829
	V-T-155	52,494	44,717	72,959	129,443	187,895	185,927
	V-T-278	1,118,873,244	1,282,747,080	2,080,271,572	3,655,320,538	4,452,845,012	5,250,389,495
	V-T-280	34,253,864	37,548,221	61,258,830	84,973,033	132,388,842	158,113,248
	V-T-285	1,201,803,892	1,042,215,853	1,700,457,123	2,358,698,595	3,878,181,529	4,333,422,995
	V-T-295	481,305,713	435,858,262	700,527,585	1,230,270,287	1,495,141,599	1,780,012,932
	V-T-301	3,408,780	2,845,909	4,843,325	8,238,158	10,035,575	11,832,661
Y	**TOTAL	9,342,402,832	9,828,977,412	15,700,000,285	21,771,119,114	27,842,237,949	29,374,740,978
W	MIL-B-87019	47,552	38,987	85,209	118,893	140,935	169,177
	MIL-C-43838	24,488	13,417	21,881	38,840	47,313	55,787
W	**TOTAL	72,040	52,404	107,090	157,733	188,248	224,964
Z	C-F-208	1,073	809	1,483	2,831	3,204	3,778
	DOD-L-20	48,558,411	50,348,080	82,133,183	148,720,159	177,813,855	208,318,451
	KK-L-2004	12,827	12,231	18,955	35,405	43,130	50,854

SPECIFICA- TION NUMBER	SCENARIO A	M+8	M+12	M+16	M+24	M+30	M+36
Z							
KK-L-271	15,262	13,000	21,211	29,422	37,632	45,843	54,054
KSA-K-7000	655,304	388,858	650,785	902,674	1,154,583	1,406,492	1,658,401
KSA-N-1000	4,242	4,072	6,843	9,215	11,787	14,358	16,930
KSA-PC-100	158	150	244	339	434	528	623
KSA-NP-100	5,332	5,488	8,951	12,418	15,881	19,348	22,811
L-S-125	588,520	504,755	823,545	1,142,339	1,461,129	1,779,921	2,098,715
LPP-DE58-78	69,732	66,287	140,800	195,303	249,808	304,309	358,812
MIL-B-17757	170,115	144,994	238,570	328,145	419,720	511,298	602,871
MIL-B-41826	7,209,298	6,328,883	10,328,087	14,323,259	18,320,442	22,317,635	26,314,826
MIL-B-81813	107,185	80,015	130,551	181,088	231,825	282,181	332,898
MIL-C-15085	51,552	40,527	68,122	91,718	117,314	142,910	188,508
MIL-C-1734	2,880	2,638	4,304	5,970	7,638	9,303	10,968
MIL-C-43258	795,378	640,248	1,044,618	1,448,981	1,853,348	2,257,712	2,662,081
MIL-C-43303	2,389,324	2,584,934	4,218,558	5,848,078	7,480,098	9,112,120	10,744,142
MIL-C-43424	23,874	21,278	34,718	48,158	61,598	75,038	88,478
MIL-C-43878	1,268,882	1,099,484	1,793,910	2,488,327	3,182,745	3,877,181	4,571,578
MIL-C-43701	87,137	47,669	77,775	107,883	137,988	168,095	198,202
MIL-C-5040	4,008,782	3,895,143	4,400,182	4,805,818	5,211,157	5,616,457	6,021,835
MIL-C-7515	2,728,578	2,713,920	2,780,082	2,808,264	2,852,438	2,898,608	2,944,781
MIL-C-83242	80,878	68,429	108,384	150,339	192,295	234,249	276,203
MIL-H-41802	138,325	470,431	767,548	1,064,860	1,361,775	1,658,889	1,956,003
MIL-L-11075	14,880	12,895	20,712	28,730	36,747	44,765	52,783
MIL-L-1870	37,200	31,738	51,780	71,824	91,868	111,912	131,957
MIL-L-1709	441,528	371,724	608,500	798,288	1,078,048	1,357,821	1,645,594
MIL-L-40051	47,278	39,773	64,893	90,012	115,132	140,252	165,372
MIL-L-40069	1,800	1,504	2,817	3,629	4,842	5,655	6,468
MIL-P-15064	322,272	270,553	441,429	612,308	783,181	954,058	1,124,934
MIL-R-1870	158,000	138,845	228,898	314,454	402,208	489,963	577,717
MIL-R-17343	1,875,000	540,568	881,978	1,223,390	1,564,801	1,906,212	2,247,624
MIL-R-24048	6,750,000	1,846,044	3,175,124	4,404,204	5,633,284	6,862,365	8,091,445
MIL-R-30500	4,989,083	1,897,252	2,769,201	3,841,150	4,913,098	5,985,048	7,056,998
MIL-S-43355	198,464	872,045	1,098,484	1,520,943	1,945,392	2,369,841	2,794,291
MIL-S-6760	28,173	26,658	43,488	60,338	77,173	94,012	110,848
MIL-T-40825	342,284	270,738	441,237	612,042	782,843	953,642	1,124,444
T-C-571	811,340	530,415	885,418	1,200,414	1,535,414	1,870,414	2,205,412
T-R-605	8,072	2,028	3,308	4,585	5,864	7,144	8,424
T-R-618	3,960	151	248	341	436	531	627
T-T-571	1,220,304	972,677	1,588,997	2,201,317	2,815,642	3,429,963	4,044,288
T-T-581	22,843	17,871	28,932	39,993	51,054	62,117	73,178
T-T-511	1,023,638	820,531	1,338,782	1,858,992	2,378,222	2,893,454	3,411,683
V-F-108	154,200	38,741	62,208	87,677	112,145	136,612	161,080
V-L-51	1,416,410	1,237,816	2,019,758	2,801,600	3,583,441	4,365,283	5,147,124
*TOTAL	85,574,534	79,147,712	125,502,592	171,821,937	218,225,359	264,539,724	310,860,390

# APPENDIX L SPECIALTY ORGANIC FIBERS

Summary - High Performance Fibers							
Fiber	Fiber Type	Tenacity (g/denier)	Elongation at Break (percent)	LOI <sup>a</sup>	Moisture Regain (20°C, 65% RH)	Degradation Temperature (°C)	Remarks
Homex	Aramid	5.8	15-22	27-28	7	370	Does not melt; self-extinguishing; dyeing problems; pilling problems; UV light sensitive; abrasion resistance similar to nylon 6/6 and polyester. Excellent electrical insulation.
Homex III	95% Homex 5% Kevlar						
Homex SP	50% Homex 50% Kevlar	n.a.	n.a.	n.a.	n.a.	n.a.	
Conex	Aramid	3.5-4.5	35-50		5-6	375-415	Hot air filtration, electrical insulation, protective clothing.
Durette	Modified aramid	2-4	17-20	35-38	4.1	895 = ignition	Hyperbaric chamber clothing; auto racing uniforms.
Kevlar 29	Aramid	19-22	4		5	450	Rubber reinforcement, woven fabrics, cables, harnesses, plastics reinforcement.
Kevlar 49	Aramid	19-22	3-4		3.5		
PBI	Polybenzimidazole	5	19-24	38-43	13	400	Light sensitive, excellent acid resistance.
Polyimide 2080	Polyimide	n.a.	n.a.	44	n.a.	n.a.	Good acid resistance.
Kernel	Polyamideimide	2-4	10-20	n.a.	n.a.	350-400	Attacked by alkaline solutions; resists acids.
Celox	Cyclized, cross-linked Polyacrylonitrile	1.7	10	50	10	315	Less than average abrasion resistance. Converts to carbon fiber upon high temperature exposure.
Kynol	Novoloid	1.5	35	29-30	6-7	2,500	Low strength and low abrasion resistance; good flame resistance and thermal stability.
P1FE	Fluorocarbon	1.6	19	795	0	371	Poor abrasion resistance, low strength, poor dyeability.

a. LOI, Limiting Oxygen Index, is defined by ASTM 2863 as the lowest percentage of oxygen in an oxygen-nitrogen mixture required to just support combustion under specified conditions. A low LOI indicates high flammability. Since the oxygen content of air is 21%, a fiber with a markedly higher LOI will exhibit reasonable fire resistance. For example: untreated cotton has an LOI of 16-17 and flame-retardant treated cotton has an LOI of 31-32; spun nylon has an LOI of 20 and wool, 25.

**APPENDIX M**  
**MAN-MADE FIBER PRODUCERS (MWPA MEMBERS)**

	<u>Acetate</u>	<u>Acrylic</u>	<u>Aramid</u>	<u>Metallic</u>	<u>Modacrylic</u>	<u>Nylon</u>	<u>Olefin</u> (polypropylene)	<u>Polyester</u>	<u>Rayon</u>	<u>Saran</u>	<u>Spandex</u>	<u>Triacetate</u>
Allied						F, S		F				
American Cyanamid		S, T										
American Enka						F, S		F, S	S			
Avtex	S							F	F, S			
Beaunit												
Celanese (Fibers Mktg Co.) (M) - Mexico (C) - Canada	S, T, F	S, T (M)				F (M), S	F (C), S (C)	F, S, T	F (M), S (M)			F, S
Courtaulds (O.C.M.A)		S, T			X	F			S, T			F
Badische		S, V				F, S						
DuPont		S, T	V			V, F, S, T		F, S, T		X		
Eastman	F							F, S				
Hercules					X							
Hoechst							S, T					
Monsanto		S, T, V			X	F, S, T		F, S				
Phillips												
North American Rayon									F, T			
Anaco Fabrics												
• Fiber (X)			1	5	6	19	13	26	14	6	6	2
• Staple (S)	5	13				8	6	15	3			2
• Tow (T)	7	10				2	3	3	1			2
• Yarn (Y)	8	8	1			26	19	34	15			6
• Filament (F)	2											

\*Total number of domestic producers

APPENDIX N  
DOMESTIC MAN-MADE FIBER CAPACITY  
(MM Lbs)

	Rayon		Acetate		Nylon(1)		Polyester		Olefin(2)		Acrylic(3)		Textile		Other(4) Yarn & Monofilament
	Yarn	Staple and Tow	Yarn	Staple and Tow	Yarn & Monofilament	Staple and Tow	Yarn & Monofilament	Staple and Tow	Yarn & Monofilament	Staple and Tow	Staple and Tow	Glass Fiber			
1975	100	725	825	384	28	412	1,871	773	1,852	1,961	672	125	824	909	16
1976	94	737	831	395	18	413	1,842	885	2,027	2,149	864	120	829	893	16
1977	85	690	775	371	8	379	1,885	959	2,126	2,390	878	114	869	940	16
1978	85	658	743	318	8	326	1,844	965	2,057	2,558	926	119	869	1,084	16
1979	75	671	746	326	8	334	2,030	1,030	2,084	2,637	908	136	855	1,220	20
1980	75	514	589	360	8	368	2,053	991	2,092	2,733	930	152	848	1,443	20
1981	63	514	657	323	8	331	1,976	930	2,014	2,769	933	234	830	1,440	20
1982	58	510	568	318	4	322	2,028	1,039	2,026	2,854	989	287	838	1,695	20

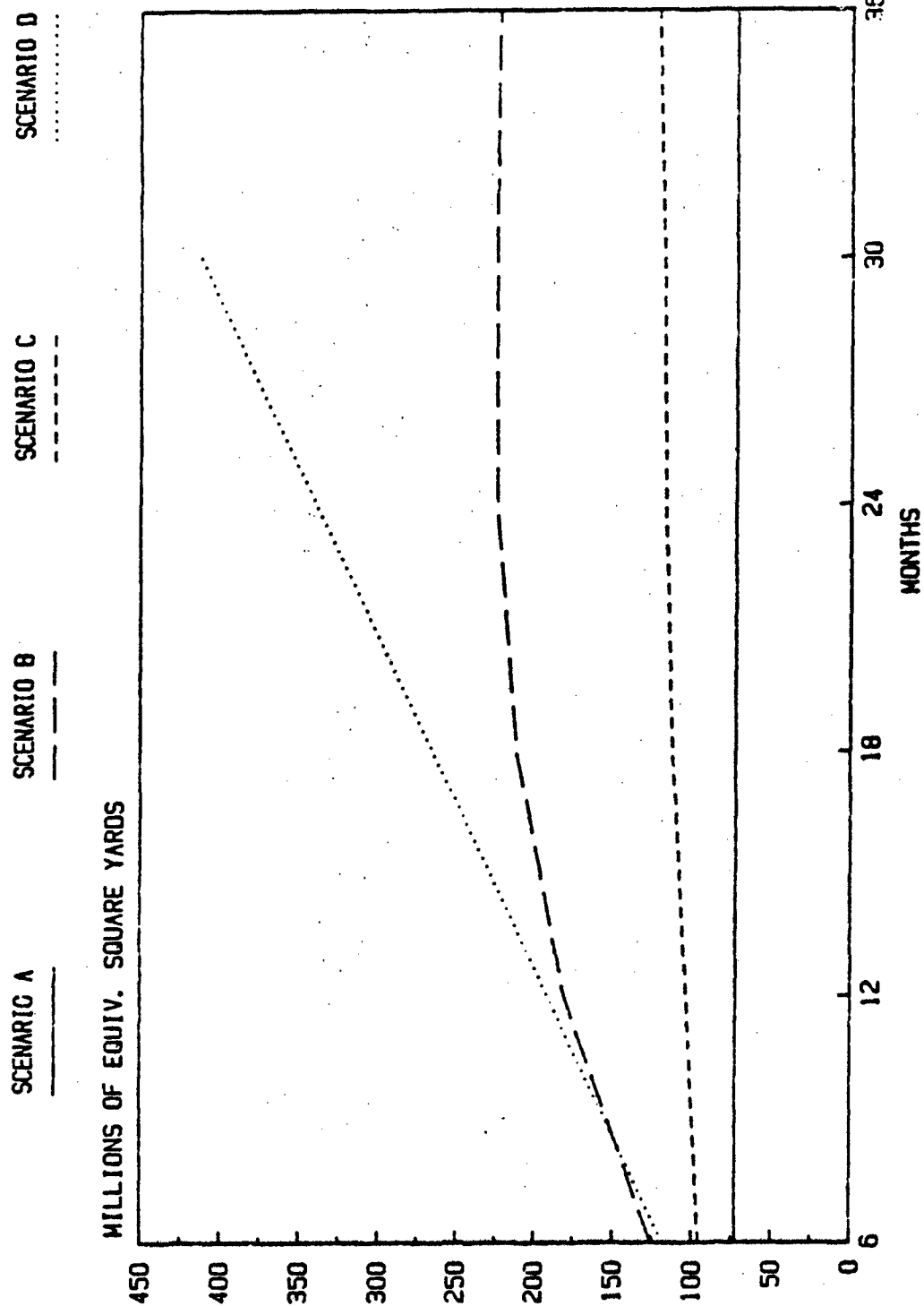
- (1) Nylon includes Aramid.  
 (2) Olefin includes polyethylene, polypropylene and vinyon.  
 (3) Acrylic includes modacrylic.  
 (4) Other includes saran and spandex.

**APPENDIX O**  
**U.S. MAN-MADE FIBER CAPACITY**  
(Millions of Pounds)

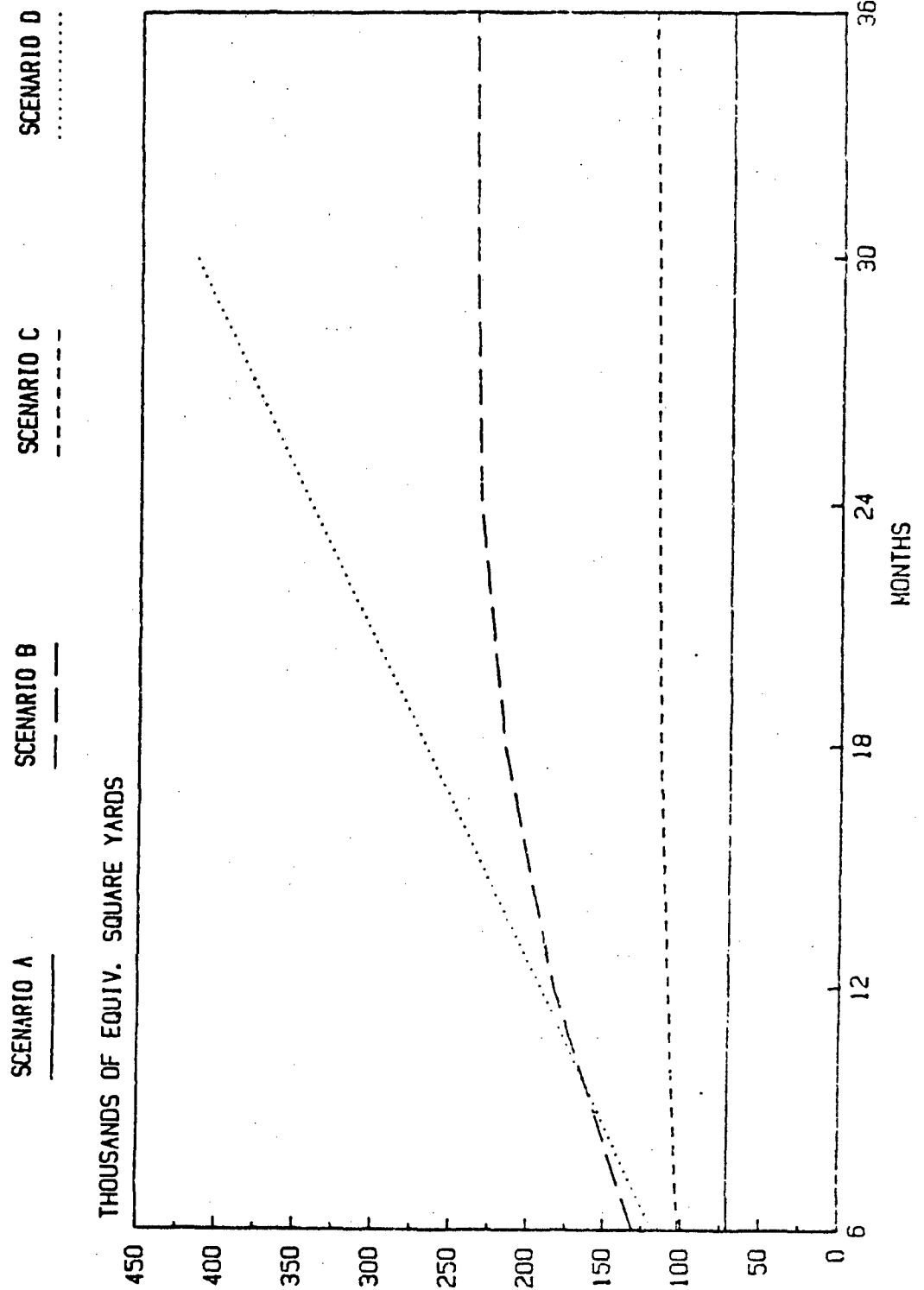
	FORECAST			
	Nov. 1982	May 1983	Nov. 1983	May 1984
<b>RAYON</b>				
Filament	58	58	58	58
Staple & Tow	510	510	510	510
Total	568	568	568	568
<b>ACETATE</b>				
Filament	318	318	318	318
Staple	4	4	4	4
Total	322	322	322	322
<b>NYLON</b>				
Textile Filament	536	537	539	523
Industrial Filament	528	533	538	546
Carpet Filament	933	950	955	960
Staple	987	1,037	1,055	1,062
Total	2,984	3,057	3,087	3,091
<b>POLYESTER</b>				
Textile Filament	1,265	1,274	1,274	1,274
Industrial Filament	337	340	343	345
Staple	2,832	2,852	2,877	2,877
Total	4,434	4,466	4,494	4,496
<b>ACRYLIC</b>				
Staple & Total	849	851	856	856
<b>OLEFIN</b>				
Yarn	226	232	235	235
Monofilament	369	373	378	378
Slit Film	460	470	470	480
Staple	274	274	274	274
Total	1,329	1,349	1,357	1,367
<b>OTHER</b>				
Saran Yarn	5	5	5	5
Spandex Yarn	25	25	25	25
Vinyon Staple	7	7	7	7
Total	37	37	37	37
<b>TOTAL*</b>				
Cellulosic	890	890	890	890
Noncellulosic	9,633	9,760	9,831	9,847
Total	10,523	10,650	10,721	10,737
* Excludes:				
Textile Glass	1,718	1,754	1,804	1,815

# APPENDIX P

## TEXTILE CATEGORY DEMANDS BROADWOVEN BY SCENARIO



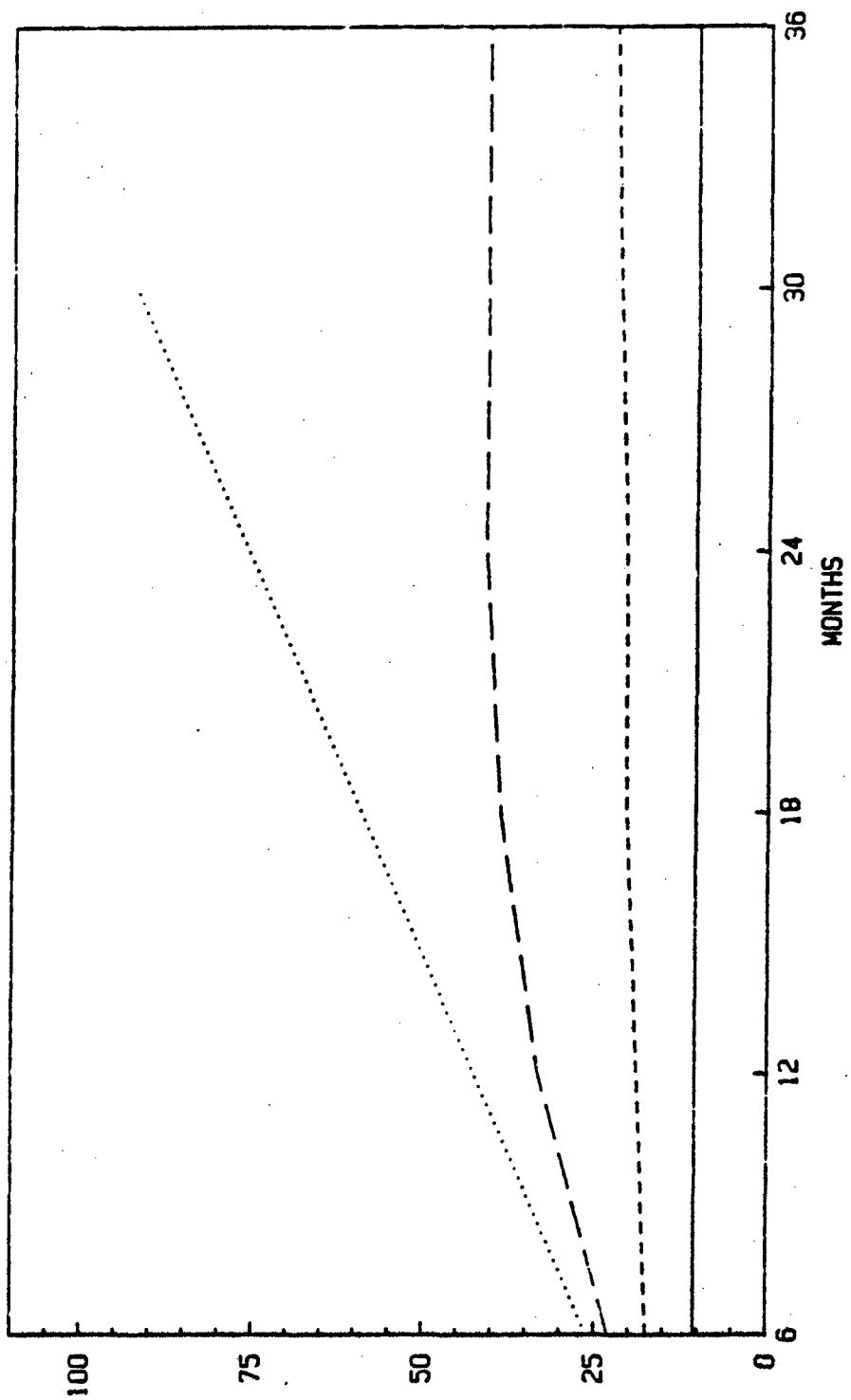
# APPENDIX Q TEXTILE CATEGORY DEMANDS NON-WOVEN BY SCENARIO



# APPENDIX R TEXTILE CATEGORY DEMANDS KNIT BY SCENARIO

SCENARIO A      SCENARIO B      SCENARIO C      SCENARIO D

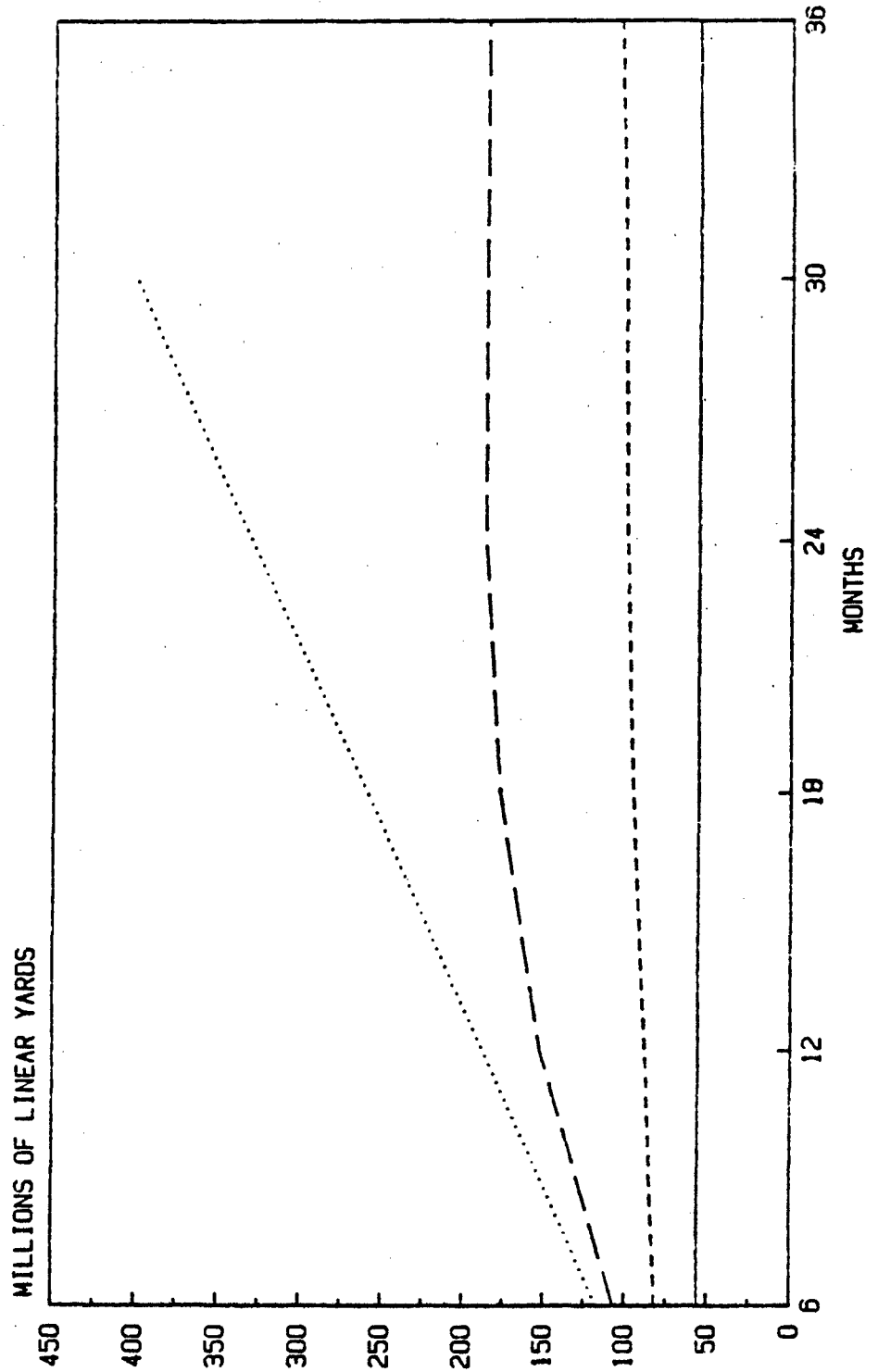
MILLIONS OF EQUIV. SQUARE YARDS



APPENDIX S

# TEXTILE CATEGORY DEMANDS NARROW WOVEN BY SCENARIO

SCENARIO A      SCENARIO B      SCENARIO C      SCENARIO D



## APPENDIX T

### Classes of Broadwoven Textiles

#### Cotton Broadwoven Gray Goods

- Duck and Allied Fabrics
- Sheeting and Allied Coarse and Medium Yarn Fabrics  
(except Bed Sheeting)
- Bed Sheeting
- Print Cloth Yarn Fabrics  
(Carded yarns approximately 28's to 42's; threads per sq. in.  
85 and above.)
- Tobacco, Cheese, and Bandage Cloth  
(Threads per sq. in. 84 and under)
- Carded Colored Yarn Fabrics  
(Denims, Chambrays, etc.)
- Toweling, Washcloth, Dishcloth fabrics
- Blanketing & Other Napped Fabrics
- Fine Cotton Goods
  - Combed
  - Fine Carded
- Other Woven Fabrics and Specialties  
(Bedspreads, Drapery, Upholstery, Corduroys,  
Velveteens, Damasks, etc.)

#### Man-Made Fiber Broadwoven Gray Goods

- 100% Filament Yarn Fabrics
- 100% Spun Yarn Fabrics & Blends  
(Chiefly Manmade Fibers by weight; except bed sheeting)
- Bed Sheeting
- Combinations & Mixtures of Filament and Spun Yarn Fabrics
- Blanketing, Silk, Pope & other speciality fabrics

#### Wool Broadwoven Goods

- Woolen Apparel Fabrics
- Worsted Apparel Fabrics
- Non-Apparel Fabrics

# APPENDIX U

## STANDARD INDUSTRY FABRICATIONS

Name of Fabric	Weave or Method of Fabrication	Characteristics		Suitable End Use	Influences Garment Mfg.	Some Factors Influencing Cost
		Distinguishing	Performance			
Broadcloth	Plain weave	Weight may vary from sheer dress fabrics to heavy coatings - cotton broadcloth has approx. twice as many warp as filling yarns giving fine rib appearance	Durable Versatile	Blouses Shirts Dresses Heavy coatings (wool)		Fiber content Weight Ply yarns Mercerization
Duck	Number and army ducks, plain weave ounce ducks 2/1 basket	Closely woven, heavy material - generally made of ply yarns in warp and yarns of various sizes and weights in filling	Most durable	Sports equipment Some sportswear, such as shoe uppers Work clothes, Industrial uses	Difficult to stitch several thickness together - thickness of fabric reduces no. of plies (layers) per spread	Weight
Gabardine	Twill weave	Warp faced steep (45° or 63°) twill of worsted, cotton and various blends Smooth, hard surface Appearance of single, diagonal lines on fabric face	Long wearing Tendency to shine	Men's and women's wear Sportswear Rainwear	Care in pressing due to tendency to shine  Difficult to conceal construction in-accuracies and defects in flat, firmly woven fabric Uniformity of interior details (hems, seam allowances) more critical if imprinting on garment exterior	Weight Yarn twist Fiber content  May be piece dyed (cheaper than stock or skein dyeing)
Muslin	Plain weave	Soft cotton fabric warp yarns ave. 30s, filling yarns 38s to 44s. Thread count approx. W-56 to 80 F-44 to 80	Versatile - can be bleached, printed, dyed, glazed, etc. for wide use	Blouses Summer dresses Underlinings Patternmaking	Should be pre-shrunk before cutting	Yarn quality Thread count

Name of Fabric	Weave or Method of Fabrication	Characteristics		Suitable End Use	Influences Garment Mfg.	Some Factors Influencing Cost
		Distinguishing	Performance			
Osnaburg	Plain weave	Coarse cotton cloth of medium to heavy weight. Characterized by uneven yarns which have bits of cellulosic waste. Should be described as P. W. (part waste) or Clean Most impurities bleached out and fabric resembles coarse yarn linen.	Depends on waste incorporated Washable	Suiting Sportswear Beachwear Pocketing	Waste in yarn may cause irregularities in fabric that would be objectionable on collars, lapels and other highly visible garment parts	Percent waste Yarn quality Compactness of weave
Poplin	Rib weave	Similar to a lightweight rep - heavy rounded filling produces tight corded effect W-88 to 116. F-40 to 56. More pronounced rib filling effect than broadcloth.	Durable	Dress goods Sportswear Uniforms Rainwear if water repellent finish	Seam finishes needed to prevent ravelling	Fiber content Weight Yarn quality Carded or combed
Woolen	Any weave	Fabric of coarse and fine hair fibers in rather random arrangement in the yarns; characteristics are loose fiber ends and bulk; has lower thread count and cheaper than worsteds	Does not tailor well nor hold creases Gives good wear, tends to sag.	Women's suits Coats	Difficult to tailor well. Pressing difficult for pleats, creases and flat edges. Bulky especially where seams join. Requires underlining to reduce sagging	Shorter fibers than worsteds. Less yarn processing Loosely woven compared to worsted.
Worsted	Depends on fiber and spinning method smooth, lustrous high twist, any weave, normally plain weave	Fabrics of uniform, fine, long hair fibers in parallel arrangement in yarns; more expensive than woolens; lightweight, compact fabric.	Holds crease Gives better wear than woolens Strong	Tailored suits Coats Sportswear	Tailors well Difficult to conceal inaccuracies and defects in construction	Fiber quality Yarn quality Compactness of weave

# APPENDIX V SHUTTLELESS WEAVING MACHINES

## FLEXIBLE-RAPTER MACHINES

Manufacturer	Marco Pignone Dir. Smit Via E. Rumagosa 1 36015 S. Maria Italy	Marco Pignone Dir. Smit Pohlman 3 7 8900 Lept. Belgium
U.S. representative	VTMI Box 3323 Spartanburg, S.C. 29304	Friend of America Box 5519 Greenville, S.C. 29608
Model	TP 300 Series	PCW
Width (in.)	75 161	84 111
Speed:		
Wet insertion (rpm)	341	724 179 in. model
Picks/min.	300 175 in. model	340 179 in. model
Wet insertion method	Grippers and flexible rapier guided into the shed	Flexible rapier driven by isolated belt amplifier system

Warp shedding method	Cam—12 harness positive type. Shuttle dobby—20 and 28 positive type. Shuttle #2222 Jacquard in ads	Dobby, cam Jacquard Underneath cam (81) outside cam (121) dobby (20) Jacquard
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Color pattern selection	Wet—8 color selector separate from dobbie (warp)	Eight colors, pick and pick, mechanically driven, with own separate tape pattern
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Warp beam dia. (in.)	31.5, 39.6	31.5, 39.6
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Pick range (rpm)	5.08 227 3 120 (warp)	4.68 282 37 118 (warp)
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Fabric woven	Woolens, drapery, upholstery, blankets— normal and thermal electric blanket sheds table cloth, denim, corduroy, tulle, etc.	Woolens, blankets, acrylic, worsted apparel, heavy cotton shirting, blends, denim, tulle, corduroy, etc.
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Fiber, yarn woven	Wool, flax, ramie, cotton, silk, rayon, acetate, jute, hemp, polypropylene	Minofilament 15 2 200 dte, cotton, flax, ramie, all filaments including rayon, polyester, nylon, etc.
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Approx. cost (\$ U.S.)	Depends on spec	Low to mid 40 000
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Approx. delivery (mo.)	Depends on spec	6
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Other special features	Industrial and tero, 115% hump in table low noise level—no dte low maintenance and operating cost trucked in form hot knife wipers, blowing waste— 110 000 in 110 1 37 in	Thermo tucked selvages, tucking in side and center ultrasonic trimmer ultrasonic fringe trimmer, pick fringe trimmer, independent barbling motion trip to 60 in dial, electro mech. hand warp stop motion
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Textile World October 1982

## ATP-JET MACHINES

Manufacturer	Gesam GmbH & Co. D 4773 Mohrner Gunne, West Germany	Gesam GmbH & Co. D 1773 Mohrner Gunne, West Germany
U.S. representative	Olex Inc. Box 6001 Greenville, S.C. 29608	Olex Inc. Box 6001 Greenville, S.C. 29608
Model	ATP Jet 2000	ATP Jet Terry
Width (in.)	48 111	48 111
Speed:		
Wet insertion (rpm)	To 1 420	To 1 040
Picks/min.	To 630	To 370
Wet insertion method	Main nozzle and auxiliary nozzles	Main nozzle and auxiliary nozzles

Warp shedding method	Cam motion, dobbie, Jacquard	Cam motion dobbie, Jacquard
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Color pattern selection	Single color with mechanical development	Single color with mechanical development
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Warp beam dia. (in.)	To 36	To 36 (ground), To 48 (jet)
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Pick range (rpm)	1 27 220 01	2 34 160 02
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Fabric woven	Lightweight to mediumweight fabric (to 13 75 or 14 18)	All types terry
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Fiber, yarn woven	Single and filament	Single fiber yarns
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Approx. cost (\$ U.S.)	Depends on spec	Depends on spec
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Approx. delivery (mo.)	6 7	6 7
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Other special features	Air consumption ranges 20 45 cu m in machine	Air consumption ranges 20 45 cu m in machine, pile length ranges 0 7 mm
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# AIR-JET MACHINES

Inventor	Manufacturer	Model	Capacity (spins/min)	Speed (rpm)	Pitch (mm)	Width (in.)	Weight (lb.)	Power (hp)	Voltage (V)	Frequency (Hz)	Other features
Kanemitsu 40 Prague 10 Czechoslovakia	Mitsubishi Motor Co. Ltd. 3-1-1 Chome Shimizu-ku Tokyo, Japan	Picoseal P-1000 P-1001	300 300 300	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	Universal mixer 1st, 2nd, 3rd and single filling insertion
Onoda 3-101 Parkside Dr. Charlotte, N.C. 28208	Onoda Textile Machinery 3-101 Parkside Dr. Charlotte, N.C. 28208	Onoda Onoda Onoda	300 300 300	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	1000 1000 1000	Universal mixer 1st, 2nd, 3rd and single filling insertion
P 110 130, 150, 170 N	LA22	LA22	130, 150, 170	130, 150, 170	130, 150, 170	130, 150, 170	130, 150, 170	130, 150, 170	130, 150, 170	130, 150, 170	Universal mixer 1st, 2nd, 3rd and single filling insertion
41 51 59 67	59 1 66 9 74 8	59 1 66 9 74 8	51 59 67	51 59 67	51 59 67	51 59 67	51 59 67	51 59 67	51 59 67	51 59 67	Universal mixer 1st, 2nd, 3rd and single filling insertion
According to width	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Universal mixer 1st, 2nd, 3rd and single filling insertion
Single jet combinator	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Single nozzle with closed type air guide	Universal mixer 1st, 2nd, 3rd and single filling insertion
Can motion up to 10 harnesses	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	4 or 6 harness plain or plain weave for 10 harnesses, 8 harness side mounted cam or 10 harness dobby	Universal mixer 1st, 2nd, 3rd and single filling insertion

# AIR-JET MACHINES

Manufacturer	Model	Capacity (spins/min)	Speed (rpm)	Pitch (mm)	Width (in.)	Weight (lb.)	Power (hp)	Voltage (V)	Frequency (Hz)	Other features
Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland	Adachi Seater Ltd. Ch 1123 Aichi, Switzerland
Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418	Toyoda Auto Loom Works 1 Toyoda-cho 2-1 home Kariya-shi Aichi Japan 418
U.S. representative	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608	Sauer Corp. Box 18179 Greenville, S.C. 29608
Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model
Width (in.)	Width (in.)	Width (in.)	Width (in.)	Width (in.)	Width (in.)	Width (in.)	Width (in.)	Width (in.)	Width (in.)	Width (in.)
Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed
Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)	Pitch (mm)
Width insertion method	Width insertion method	Width insertion method	Width insertion method	Width insertion method	Width insertion method	Width insertion method	Width insertion method	Width insertion method	Width insertion method	Width insertion method
Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method	Warp shedding method
Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection	Color pattern collection

# FLEXIBLE-RAPIER MACHINES

Draper Corp. Box 18100 Greensboro, N.C. 27419	Quinn Cam & Co. Co. Box 1775 West Germany	Messing Twillies Ltd. 153 174 Thurnham Rd Bradford West Yorkshire BD1 2AG, U.K.	James Machine Ltd. Brilliant, N. Ireland
Diaper Corp. Box 5498 Spokane, S.C. 29304	Olea Inc. Box 6061 Greenville, S.C. 29606	Frank C.W. McKittrick Co. 63 Middleboro St N. Bedford Mass 01863	Tea America Inc. 239 Horton Way Charlotte, N.C. 28203
DLG 300	Flexible rapier	MBRL 450 S	ML 3 21
40 72	74 x 181.1	80 180	74 x 129.8
350 550	To 601	650	732
240 280	To 360	280	320
Flexible rapier gripper: read with size of loom plus 3 in. and use size of loom minus 11 in.	Flexible rapier belts	Twin flexible ribbons carry two rapier heads for tip transfer at loom reverser rapier guides on very insure efficient with transfer	Flexible rapier
Cam 161 harness plus separate tape winding and separate keno dobby, 18 harnesses (12 mm) 20 harnesses (10 mm) plus separate keno and tape sewage	Dobby jacquard	Positive cam, dobby or jacquard harnesses are normally 12 mm pitch with 28 harness maximum dob by capacity pushbutton reversing for per h finishing	Cam, dobby
Four color dobby looms only, lifting unit for cam and dobby beams	Single color and right colors with thread insertion	With preprogram handles up to eight colors, unit electronic, to be separate card in synchronization with shedding motion	To 8 colors
26 28 30 32 36	To 31.8	31.5	31.5
15 146 3 75 292	0.78 27.8	6.5 200	10 60
Apparel, knitted textiles, industrial textiles, sports textiles, knit textiles	Blankets and Lohs's for industrial purposes in heavy-weight qualities	Suitings, sweaters, blankets, bedcovers, travel bags, covers, shirts, furnishings industrial fabrics	Wide fabric range includes modern, washed upholstery, cotton fabrics and cam as ranging from domestic to industrial
Cotton, cotton-polyester, textured polyester, Cordura polyester and nylon filament	Cotton, wool, manmade fibers, blended yarns	Woolen, worsted, cotton jute and manmade blends, filament and fancy yarns	Wool, cotton blends
24 000 30 000	Depends on speed	Depends on speed	
6	6.7	6	
With carrier coarse to medium yarns, fine yarns taking up to 1000 twist, package shield vacuum system for fine yarns, positive and negative pick finder for cam and dobby, central lube system	Oil boom fabric taking up to 1000 twist, package shield vacuum system for fine yarns, positive and negative pick finder for cam and dobby, central lube system	Pringe-kno or locked sewage, knit, take-up when the reversible and synchronized when finishing pick, setting waters for minimum downtime at warp change and reproducible utility	Drive operates with a for the reversible quadrant and pinion mechanism to a sewage fabric

Trade Week October 1982

# FLEXIBLE-RAPIER MACHINES

Best Machine Works Ltd. CH 9630 Ruit, Switzerland	Adolph Bauer Ltd. CH 9720 Arlon, Switzerland	Vamatex SpA Via Clara 18/B 24020 Villa di Serio Italy	Vamatex SpA Via Clara 18/B 24020 Villa di Serio Italy
Bull Corp. 2401 Westinghouse Blvd Charlotte, N.C. 28217	Saurer Corp. Box 16179 Greenville, S.C. 29606	Ernest L. Frankl Corp. Box 6939 Greenville, S.C. 29606	Ernest L. Frankl Corp. Box 6939 Greenville, S.C. 29606
F 2001	Saurer 350	St-151 Terry Loom	C-301
43 110	47 94 strips of 41	75 142	75 150
650 174 in. model	320 480	748 1 053	768 1 090
323	200 250	260 360	255 360
Gripper (right hand) carries to center of shed and transfers to left hand gripper	The yarn presented by the color selector is gripped in the tip of the L1 rapier head, transported to shed center, transferred to left rapier to advance	Flexible rapier with positive grippers	Flexible rapier with positive grippers
Cam, dobby, jacquard	Taper motion, 14 mm pitch, maximum 10 lanes plus 2 rams for keno catch ends, positively acting dobby up to 25 jacks, 12 mm pitch, compact jacquard for chain or vertical shut drive	Taper motion, dobby jacquard	Positive tappet system up to 14 harnesses, dobby up to 20 harnesses, jacquard or jacquard plus 6 harnesses, dobby motion in ground sewage
Dobby jacquard separate pattern device	Single color, filling with 2-6 colors, color selection separated by dobby or separate control card for cam		Electronic 8 color selection
26 28 30 32	29.5	32	37
5 305	6.5 437	17 100	7 210
Plain, dobby and jacquard fabrics up to 1000 mm wide and right yarn types	Apparel, industrial, homefinishing, table linen, light medium, medium heavy	Terry, knits and towels	Plain or fancy apparel, industrial, household
Spun yarns of natural fibers and manmade filaments—fil and textured, novelty fancy and blends	Spun blends, filaments	Cotton and blends	Cotton wool filament and spun manmade and cellulosic fibers blendable with filament
—	—	30 000	25 000
7	6	4	4
Lightweight and industrial fabrics, novelty, a universal machine	Saurer and WFF shuttle looms are mounted in Saurer 150	3 or 4 pick every 10 mm, 1000 mm wide, all kinds of pick, high positive driven pile to any cloth, shifting text motion, pile height up to 3.5 in 114 mm	All major components suitable for pick finder and large drive precision warp control, pick up from looms, suitable from looms, suitable from looms

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# RIGID-RAPIER MACHINES

Manufacturer	Jose Gieseler GmbH & Co. Postfach 110140 D 4060 Viersen (West Germany)	Jose Gieseler GmbH & Co. Postfach 110140 D 4060 Viersen (West Germany)
U.S. representative	Hansen Yarn & Fabrics Box 3976 Greenville S.C. 29604	Bulliger Corp Box 2919 Spartanburg S.C. 29304
Model	Various	SCM Phoenix
Width (in.)	59 1/2 (steps of 4)	31, 65
Speed Weft insertion (ypm) Picks/min.	320-175 (in.)	21-381 To 210 (double)
Web insertion method	Rapier weaving machine with tip to tip web transfer in center of loom. Simultaneous control system with individual adjustment of the control levers.	Rigid rapier weaves principle tip to tip transfer in center of loom. Simultaneous control system with superimposed cut into two pile fabrics.
Warp shedding method	Positive dobblers for maximum of 20 jacks at 12 mm pitch 14 jacks at 18 mm pitch cam motion 12 and 18 mm pitch. Jacquard heads fully reversible.	By 3 position dobby or cam motion Jacquard 3 position lift such as Gross JMDs- 130 EX
Color pattern selection	Single color 1st web mixing multicolor for maximum eight colors with direction selection from the dobby controlled by punch cards multi color for 8-14 colors with Jacquard attachment	1st or 1st enter or 2nd colors
Warp beam (dia. in.)	39 1/4 (bottom top standard) 40 1/2 (bottom top standard) 41 1/2 (bottom top standard)	24-40 (ground) 24-32 (figure)
Pick range (lpi)	1-7391	18-132
Fabric weave	Silk, gray and colored cotton goods, wovens worsted, mattings linings, furnishings and upholstery fabrics	Viscose and rayon cotton velvets 100% cotton velvets cotton plushes Jacquard patterns either 1 or 4 filling colors
Fibers, yarn weaves	All types of yarn, with yarn count range, extend from coarse fancy yarns to finest silk yarns	Cotton rayon PE PE PE wool mohair rayon
Approx cost (\$ U.S.)	62 000	116 000
Approx delivery (mo.)	10-12	6
Other special features	Multiple pick insertion, fully reversible dobby cross, transverse motion variable pick density outer and center turn in units, top and bottom warp kind motions differential beam stands for upper lower beams	2 to 20 mm pile height between main fabrics 2 to 20 mm pile height between main fabrics

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# RIGID-RAPIER MACHINES

Jose Gieseler GmbH & Co. Postfach 110140 D 4060 Viersen (West Germany)	Jose Gieseler GmbH & Co. Postfach 110140 D 4060 Viersen (West Germany)	Jose Gieseler GmbH & Co. Postfach 110140 D 4060 Viersen (West Germany)
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Fibers, yarn weaves	All types of yarn, with yarn count range, extend from coarse fancy yarns to finest silk yarns	Cotton rayon PE PE PE wool mohair rayon
Approx cost (\$ U.S.)	62 000	116 000
Approx delivery (mo.)	10-12	6
Other special features	Multiple pick insertion, fully reversible dobby cross, transverse motion variable pick density outer and center turn in units, top and bottom warp kind motions differential beam stands for upper lower beams	2 to 20 mm pile height between main fabrics 2 to 20 mm pile height between main fabrics

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## RIGID-RAPIER PROJECTILE MACHINES

[illegible]

Optional available for 245 filling selector	1 color filling mixer 2, 4, 8 colors by means of dobby jacquard machine special punched card unit	Single color
48 (pick) 50 (backing)	315 37	315 37 38 37
12 128	21 460 1	25 4 152 4
Jacquard weaves and punches for supplementary industry	Cotton (including Terry) wool cottons, spun and filament spun and filament mixed fiber, jute glass fiber, metallic in different weaves	Standard articles in wool, cotton, rayon and filaments to be woven with 6 harness frames
Even weaves, 2, 128 weaves, 2, 128 selection of weaves or punches for blends as backing warps	Practically any kind of textile can be made in this machine 2400 Tex to 12 files In leading P/V ribbing	160 Tex and finer
Filling selector for 245 kinds of self automatic pick loading operation on filling stop brake clutch to minimize in loom drive recombination starting marks	Intermediate finishing units allow small width weaving with all items included in self-ages full cross knives ages, oriented knives, no yarn waste, knives, no yarn waste, knives parts, regular accurate repeat	Produced in U.S. multi-width possible with item included in or kno self-ages, direction ally controlled machine with display panel showing knives, no yarn waste, knives parts, regular accurate repeat

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## WATER-JET MACHINES

Manufacturer	Model	Weight (lb.)	Speed: Inch feed (rpm) FPM/min.	Bed location method	Warp shedding method	Color pattern collection	Warp beam dia (in.)	Pick range (rpm)	Fabric notes	Remarks, yarn notes	Approx cost (\$ U.S.)	Approx delivery (mo.)	Other special features
Minor SpA Via Al Serio, Cortina d'Ampezzo, Albino Italy 24021		48 71.50	1 237 To 450	Filling yarn is predetermined by a measuring drum and is then propelled by water through an air-water nozzle across the shed	Cant. tensioned in an oil bath; crank conventional dobby	Not available	33	18 142	Light to medium heavy fabrics	Warp yarns include monament polyester, nylon, polypropylene, acetate viscose rayon, glass filing filament, spuns	Depends on yarns	6	Electric bristle for positive warp tension control; high velocity water jet has anti wear device; cam shedding motion; crank in oil bath; 100% polyester plasticized filling yarn desirable
-	JH 100	50 15' 7"	1 000 400	Filling jet with exclusive 1 pick measuring device	4 harness plain weave; 4 harness double; 4 harness plain weave 6 harness plain weave full with crank motion; 16 harness dobby	1 pick recording system with lat or 24 filing missing	31 5 29 37	-	When lining, sportswear, curtain and umbrella cloth polyester blouse fabrics acetate linings and curtain fabric etc	Filament warp and filling and 18,000 wpi spun filling filament - 3x1 100/1 den 4 twisted spun cones	-	0.5	Has operated at 1,200 under lab conditions exclusive 1 pick device for measuring single yarn 1x1 or 2x2 insertion offers many advantages
Waco Textile Mach. Box 33400 J Charlotte N.C. 28224	LW32	50 15' 7"	1 000 400	Filling jet with exclusive 1 pick measuring device	4 harness plain weave; 4 harness double; 4 harness plain weave 6 harness plain weave full with crank motion; 16 harness dobby	1 pick recording system with lat or 24 filing missing	31 5 29 37	-	When lining, sportswear, curtain and umbrella cloth polyester blouse fabrics acetate linings and curtain fabric etc	Filament 30-840 den high tenacity yarn up to 76 ips	-	0.5	Mean drum system provides simultaneous feed minimum kinetic filling missing device system produces crepe fabrics of 1x1 or 2x2 regains
Textilechem Corp. No 18 18 S Chumbe Munich 721 81 Kinzawa Japan	ZW100 ZW200	50 15'	1 610 820	Water jet system with ring nozzle and plunger pump suoting device with rotary drum air flow from a blower	Plata shedding for 1x1 and 2x2 shedding at 16 inlets	1 color missing 1 1 2 3	40	12 153 10 5 inert	Manmade talita, textured fabric crepe	Filament 30-840 den high tenacity yarn up to 76 ips	-	0.5	Mean drum system provides simultaneous feed minimum kinetic filling missing device system produces crepe fabrics of 1x1 or 2x2 regains

For the World Under 1982

## APPENDIX W

### FINISHING METHODS

#### Finishes Primarily For Hand and/or Appearance

- Crepeing
- Fulling
- Mercerizing
- Lustering
- Delustering
- Weighting and filling
- Crabbing
- Decating
- Calendering
- Stiffening
- Softening

#### Finishes Primarily For Utility

##### Dimensional Stabilization

- Shrink Resistance
- Wrinkle and Crease Resistance
- Wash-Wear, Durable Press

##### Protective Types

- Water Repellency
- Fire Resistance
- Mildew and Rot-Resistance
- th-Proofing
- Anti-Static
- Anti-Fume
- Germicidal
- Fabric Coating
- Fabric Laminating
- Multipurpose (e.g. FWWMR)

## APPENDIX X

### 1982 DAVISON'S BLUE BOOK

<u>Category</u>	<u>Total U.S. Facilities</u>
Bleachers of:	
Cotton	91
Knit Goods	23
Man-Made Fabrics	85
Raw Stock	6
Wool or Worsted	8
Yarns	47
Dyers of:	
Carpet	21
Cotton	116
Hosiery	34
Knit Goods	66
Man-Made Fabrics	174
Raw Stock	22
Silk	8
Wool or Worsted	26
Yarns	90

1982 DAVISON'S BLUE BOOK

<u>Category</u>	<u>Total U.S. Facilities</u>
-----------------	------------------------------

Printers of:

Broad Fabrics	24
Cotton	57
Knit Goods	28
Man-Made Fabrics	75
Narrow Fabrics	10
Rotary Screen	10
Silk	7
Wool or Worsted	7

Finishers of:

Blends	68
Carpet	17
Cotton	129
Hosiery	41
Knit Goods	72
Man-Made Fabrics	168
Silk	10
Wool or Worsted	17

1982 DAVISON'S BLUE BOOK

<u>Category</u>	<u>Total U.S. Facilities</u>
Bonding	31
Coating of Fabrics	83
Decating	23
Flameproofing	54
Flame Repelling	36
Jet Dyeing	12
Laminating	67
Mercerizing	23
Mildew Proofing	11
Package Dyeing	51
Rubberizing	15
Scouring	62
Screen Printing	92
Solvent Finishing	14
Sponging or Shrinking	36
Waterproofing	50
Water Repelling	44

1982 DAVISON'S BLUE BOOK

CLASSIFIED DIRECTORY

MILLS

<u>Type</u>	<u>Total in U.S.</u>
Yarn, Blends	112
Yarn, Cotton Carded	97
Yarn, Cotton Combed	61
Yarn, Elastic	18
Yarn, Knitting	72
Yarn, Man-Made and Yarn Producers	90
Yarn, Man-Made Spinners, Winders, Twisters	175
Yarn, Mercerized	7
Yarn, Merino	3
Yarn, Open End System	25
Yarn, Roving	5
Yarn, Spun Man-Made Fiber	94
Yarn, Stretch	18
Yarn, Texturized	73
Yarn, Thrown	41
Yarn, Warps	9
Yarn, Weaving	48
Yarn, Wool	62
Yarn, Worsted	28

1982 DAVISON'S BLUE BOOK

CLASSIFIED DIRECTORY

MILLS

<u>Type</u>	<u>Total in U.S.</u>
Blankets, Wool	29
Blended Fabrics	66
Braids and Trimmings, Cotton	71
Braid, Elastic	20
Braids and Trimmings, Synthetic	72
Broad Fabrics, Man-Made	68
Broadcloths	36
Buckrams	6
Burlaps	6
Carded Cotton	12
Carding, Wool	17
Combing, Worsted	7
Cordage and Rope, Natural Fibers	70
Cordage and Rope, Man-Made Fibers	61
Denims	29
Dobby Goods	11
Ducks	32
Elastic Braids	45
Elastic Webbing	41
Elastic Goods, Woven	24

1982 DAVISON'S BLUE BOOK

CLASSIFIED DIRECTORY

MILLS

<u>Type</u>	<u>Total in U.S.</u>
Fabric - Cotton Broad	6
Fabric - Man-Made	59
Fabric - Woolen	7
Grey Goods - Cotton	36
Grey Goods - Man-Made	42
Industrial Fabrics - Woven	99
Interlinings - Cotton	5
Interlinings - Man-Made	17
Men's Wear - Woolen	33
Men's Wear - Worsted	18
Narrow Fabrics	89
Nonwoven Fabrics - Cotton	30
Nonwoven Fabrics - Wool	18
Nonwoven Fabrics - Man-Made	106
Tapes	95
Thread	92
Twines, Cotton, Linen	35
Webbing	67
Winding, Coning, Spooling, Twist	60
Women's Wear - Woolen	41
Women's Wear - Worsted	16

**APPENDIX Y**  
**GENERAL APPAREL CATEGORIES**

<u>Category</u>	<u>Description</u>	<u># Study Items</u>
1	Shirts - Single Needle	11
2	- Double Needle	6
3	Skirts	5
4	Trousers - Single Needle	6
5	- Double Needle	12
6	Underwear - Knit Shirts	5
7	- Knit Bottoms	4
8	- Woven Shorts	1
9	Outerwear - Parkas	18
10	- Liners	9
11	Work Clothing	12
12	Knit Socks	3
13	Headwear	17
14	Gloves	19
15	Narrow Fabrics	15
16	Special Military Products	40
17	Miscellaneous Items	12
18	Tents	15
19	Mattresses	1
20	Pillows	1
21	Blankets	1
22	Tailored Coats/Jackets	9
23	Accessories	7
24	Sheets	1
25	Towels	1

Category 1

Shirts - Single Needle

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-J-43990(GL)	Jacket, Woman's, Summer, Warp Knit (Short Sleeve)
MIL-J-44020(GL)	Jacket, Woman's, Summer, Warp Knit (Long Sleeve)
MIL-J-87035A(NU)	Jumper, Man's, (Blue, Dress)
MIL-J-87037A(NU)	Jumper, Man's, White
MIL-S-19984C(MC)	Shirt, Man's, Khaki; with Quarter Length Sleeve
MIL-S-29149A(SA)	Shirt, Man's, Poly and Rayon
MIL-S-29368A(MC)	Shirts, Women's, Poly/Ctn, Long Short Sleeves
MIL-S-43505C(GL)	Shirt, Woman's, Poly/Ctn
MIL-S-44041(G)	Shirt, Man's, Short Sleeve, Poly/Ctn, Army Green
MIL-S-87016(SA)	Shirt, Man's, Poly/Ctn, Short Sleeve
MIL-S-87027	Shirt, Men's, Poly/Ctn

Category 2

Shirts - Double Needle

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-C-43199f	Coats, Hot Weather, Men's, Combat
MIL-C-44048(GL)	Coat, Combat, Woodland Camouflage Pattern
MIL-J-82293B(SA)	Jacket, Utility, Dark Blue
MIL-S-10858G	Shirt, Cold Weather, Field, Wool/Nylon, Olive Green 108
MIL-S-43502A	Shirt, Woman's, Wool, Field
LP/PDES19-73C	Coat, Camouflage Pattern, Desert

Category 3

Skirts

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-S-21087E(MC)	Skirts, Women's, Wool
MIL-S-28997A(MC)	Skirts, Women's, Poly/Wool, Green
MIL-S-40128E(GL)	Skirts, Women's, Wool and Poly/Wool
MIL-S-43488B(GL)	Skirt, Woman's, Wool, Field
MIL-S-43996(GL)	Skirt, Woman's, Summer, Warp Knit

Category 4

Trousers - Single Needle

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-S-29364(MC)	Slacks, Women's
MIL-S-43985(GL)	Slacks, Women's, Gabardine, Army Green 344
MIL-T-29369(MC)	Trousers, Men's, Wool and Poly/Wool
MIL-T-41834F	Trousers, Men's, Poly/Ctn
MIL-T-87038A(NU)	Trousers, Men's (Blue Enlisted)
MIL-T-87067(NU)	Trousers, Man's (Blue Enlisted, Blue and White)

### Category 5

#### Trousers - Double Needle

#### Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-S-43526B	Slacks, Utility, Women's, Wool, Field
MIL-T-1870H(GL)	Trousers, Cold Weather, Men's, Field, Wool, M-1951
MIL-T-6284K	Trousers, Extreme Cold Weather, Type F-1B
MIL-T-21704D(SA)	Trousers, Cold Weather, Permeable
MIL-T-21705D(SA)	Trousers, Extreme Cold Weather, Impermeable
MIL-T-43217F	Trousers, Hot Weather, Men's, Combat
MIL-T-43497B	Trousers, Cold Weather, Field, Nylon and Ctn
MIL-T-43654B	Trousers, Snow Camouflage, White, Arctic
MIL-T-44047(GL)	Trousers, Combat, Woodland Camouflage Pattern
MIL-T-83385	Trousers, Flyers, Extreme Cold Weather, CWU-18/P
LP/PDES 10-74A	Trousers, Night Camouflage, Desert
LP/PDES 20-73C	Trousers, Camouflage Pattern, Desert

### Category 6

#### Underwear - Knit Shirts

#### Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-S-43357C	Shirt, Sleeping, Heat Retentive and Moist, Resistant
MIL-T-43984(GL)	Tunic, Woman's, Rib Knit
MIL-U-17611F	Undershirt, Extreme Cold Weather
MIL-U-43262B	Undershirt, Cold Weather, Men's
JJ-U-413D	Undershirt, Man's, (Quarter-Sleeve)

### Category 7

#### Underwear - Knit Bottoms

##### Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-D-15390K	Drawers, Extreme Cold Weather
MIL-D-2525D(MC)	Drawers, Men's, Ctn, Ankle Length
MIL-D-43261B	Drawers, Cold Weather
MIL-D-43783C	Drawers, Men's (Brief Type)

### Category 8

#### Underwear - Woven Shorts

##### Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-D-40099F	Drawers, Men's, Boxer Style

### Category 9

#### Outerwear - Parkas

##### Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-C-17889D(MC)	Coat, Shooters: Ctn, Sateen, Green
MIL-C-43455E	Coat, Cold Weather, Field
MIL-C-43507A(GL)	Coat, Woman's, Wool, Field
MIL-C-43972A(GL)	Coat, All-Weather, Woman's, Black with Removable Liner
MIL-C-44030(GL)	Coat, All-Weather, Man's, Black with Removable Liner
MIL-J-43923A(GL)	Jacket, Flyers, Lightweight Wrists and Waist

Category 9 (Continued)

Outerwear - Parkas

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-J-21708E	Jacket, Cold Weather, Permeable
MIL-J-43924B(GL)	Jacket, Cold Weather, (High Temp Resis.)
MIL-J-82299B(NU)	Jacket, Extreme Cold Weather, Impermeable
MIL-J-83382B(USAF)	Jacket, Flyers, Men's, Summer, Fire Resistant
MIL-J-83388B	Jacket, Flyer, Cold Weather
MIL-O-82250C(SA)	Overcoat, Man's, Enlisted
MIL-O-2414F(NU)	Overcoat, Man's, Enlisted
MIL-P-6279J	Parka, Extreme Cold Weather, Type N-3B
MIL-P-10809E	Parka, Snow Camouflage
MIL-P-43496C	Parka, Extreme Cold Weather
MIL-R-82290C(NU)	Raincoat, Man's (Enlisted)
MIL-P-82277C	Parka, Wet-Weather
LP/P DES 25-73A	Parka, Night Camouflage, Desert

Category 10

Outerwear - Liners

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-L-41800	Liner, Groundtroop's - Parachutist's Helmet
MIL-L-43335C	Liner, Wet Weather, Poncho
MIL-L-43466C	Liner, Extreme Cold Weather, Parka
MIL-L-43498B	Liner, Cold Weather Trousers, Field
MIL-L-43536D	Liner, Cold Weather Coat
MIL-L-43672B	Liner, Snow Camouflage Trousers: White, Arctic, M-65
MIL-L-43720A(GL)	Liner, Rucksack
LP/P DES 14-73A	Liner, Night Camouflage, Parka, Desert
LP/P DES 12-79	Liner, Combat Vehicle Crewmen's Coverall

Category 11

Work Clothing

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-A-41829C	Apron, Utility, Rubber Coated Fabric (Gen Pur)
MIL-C-83141A	Coveralls, Flyers, Men's, Summer, Fire-Resistant
MIL-C-22-2F	Coveralls, Men's, Ctn, Sateen
MIL-C-15096H	Coat, Food Handlers
MIL-C-14610E	Coveralls, Explosives Handlers
MIL-C-38488A	Coverall, Flying, Anti-Exposure, Quick Donning CWU-16/P
MIL-C-41833B(GL)	Coverall, Mechanics, Cold Weather
MIL-C-83141A	Coveralls, Flyers, Men's, Summer, Fire-Resistant
MIL-C-83195	Coveralls, Flyers, Anti-Exposure CWU-21/P
MIL-C-43907A	Parka and Trousers, Wet Weather
LP/P DES 14-78	Coveralls, Combat Vehicle Crewmen's
LP/P DES 15-80	Overalls, Combat Vehicle Crewmen's

Category 12

Knit Socks

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-S-48J	Socks, Men's, Wool, Cushion Sole, Stretch Type
MIL-S-504F	Socks, Men's Winter (Wool and Ctn)
MIL-S-12549G	Socks, Men's, Nyl and Ctn, Ribbed, Stretch Type

### Category 13

#### Headwear

##### Study Items:

###### Spec.

###### Description

MIL-B-83268A	Berets, Women's, Fur Felt
MIL-C-1911G(GL)	Cap, Combat, Woodland Camouflage Pattern
MIL-C-16472F	Cap, Knit (Watch)
MIL-C-17614E(NU)	Cap, Garrison, Man's
MIL-C-21181C(MC)	Cap, Garrison, Man's: Wool, Serge, Green
MIL-C-21709D(SA)	Cap, Cold Weather, Permeable
MIL-C-29136(SA)	Cap, Food Handlers
MIL-C-29366A(MC)	Cap, Utility Camouflage
MIL-C-29373A(MC)	Cap, Garrison, Women's
MIL-C-43419B(GL)	Cap, Garrison, Poly/Wool, Tropical, Army Green 344
MIL-C-43549A	Cap, Cold Weather, Insulating, Helmet Liner
MIL-C-87071(NU)	Cap, Utility, Blue
MIL-H-43577C	Hats, Sun, Hot, Weather
MIL-H-87041(SA)	Hat, Service (White)
MIL-H-3364D	Helmet, Sun
MIL-H-19448B	Hat, Service: With Chin Strap
LP/P DES 40-71B	Hat, Camouflage Pattern, Desert

### Category 14

#### Gloves

##### Study Items:

###### Spec.

###### Description

MIL-G-43976A	Glove Set, Chemical Protective
MIL-G-822J	Glove Shells, Leather
MIL-G-835F	Glove Inserts, Wool-Nyl, M-1949

Category 14 (Continued)

Gloves

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-G-2366F	Gloves, Leather, Heavy, M-1950
MIL-G-3866E	Gloves, Men's, Cloth, Ctn, Knitted, Lightweight
MIL-G-17602D(SA)	Gloves, Leather, Black (Wool Liner)
MIL-G-21893C(NU)	Gloves, Cloth, Nyl, Knitted, (Dress)
MIL-G-38227A	Glove, Shells Flyers
MIL-G-41817C	Gloves, Cloth, Men's (Dress), White
MIL-G-43755H	Gloves, Leather, Lined, Black, Woman's
MIL-G-43976A	Glove Set, Chemical Protective
MIL-G-81188B	Gloves, Flyers, Summer, Type GS/FRP-2
MIL-M-809D	Mitten-Inserts, Trigger Finger, OG-208
MIL-M-810G	Mitten Shells Cold Weather (Trigger Finger M-1965)
MIL-M-834J	Mitten Set, Extreme Cold Weather
MIL-M-2418F	Mitten Shells, Snow Camouflage, Ctn, White, Two Fing.
MIL-M-11199F	Mitten, Heat Protective
LP/P DES 13-78	Gloves, Combat Vehicle Crewman's, Summer
LP/P DES 9-79	Gloves, Combat Vehicle Crewman's, Cold Weather

Category 15

Narrow Fabrics

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-B-43826A	Belt, Individual Equipment, LC-2
MIL-B-530	Belt, Trousers, Ctn Webbing, With Clip
MIL-B-833F	Belt, Trousers, Ctn Webbing, With Clip
MIL-B-1851F	Band, Helmet

Category 15 (Continued)

Narrow Fabric

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-B-21154B(MC)	Belts, MP: Ctn Webbing; White
MIL-C-17864C(MC)	Carrier, Pistol Holster; Ctn Duck, White: MP
MIL-H-3697C	Harness, Man's, Sled, Single Trace Type
MIL-H-41802D	Headband and Neckband, Ground Troops-Para, Helmet Liner
MIL-P-43304C	Pack and Harness Assembly, Parachutist's Weapons
MIL-R-43323D	Rifle Butt Pocket and Strap Assembly
MIL-S-1698F	Slings, Bag and Case Carrying
MIL-S-10926F	Suspenders, Trousers, M-1950
MIL-S-21042(MC)	Sling, Flagstaff: Leather, Brass Socket
MIL-S-43013C	Sling, Universal, Individual Load Carrying
MIL-S-43828	Strap, Webbing, Cargo Tie Down, Lightweight Pack Frame
MIL-S-43829A	Suspenders, Individual Equipment Belt, LC-1
MIL-S-43835B	Straps, Waist and Shoulder, Pack Frame and Field
MIL-S-43841A	Straps, Chin; Ground Troops Helmet, Steel, M-1

Category 16

Special Military Products

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-B-43366A	Body Armor, Fragmentation Protective, Groin
MIL-B-44053	Body Armor, Fragmentation Protective Vest, Ground Troops
MIL-C-44001	Cover, Helmet, Chemical Protective
MIL-C-2181J	Coveralls, Toxicological Agents Protective; M-3
MIL-C-41031B	Cover, Water Canteen, Insulated, Ctn Duck
MIL-C-43544(GL)	Carrier, Body Armor, Aircrewman, Small Arms Protective
MIL-43742B	Cover, Water Canteen, LC-2

Category 16 (Continued)

Special Military Products

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-C-43827B	Case, Small Arms Ammunition, 30-Round Magazine
MIL-C-43830A	Cover, Field Pack, Camouflage, LC-1
MIL-F-43832B	Field Pack, Combat, Nyl, Large, LC-1
MIL-F-43833B	Field Pack, Combat, Nyl, Medium, LC-1
MIL-F-12224F	Footwear Covers, Toxicological Agents Protective
MIL-H-12225F	Hood, Gas Mask, Toxicological Agents Protective, M-3
MIL-H-17024E(SA)	Hood, Extreme Cold Weather, Impermeable (Shore)
MIL-H-43461C(GL)	Havelocks, Women's
MIL-I-43903	Insert, Small Arms Protective Body Armor, Aircrewman
MIL-M-43294B	Mask, Extreme Cold Weather (Olive Green 207)
MIL-N-28935A	Net Cargo, Aerial Delivery
MIL-N-43181A	Net, Multipurpose
MIL-P-21593C(MC)	Panel Markers: Range, Flank, and Debark, Point, Nyl...
MIL-P-22295C(MC)	Protector, Trousers, Pistol Holder
MIL-B-43700B	Poncho, Wet Weather
MIL-S-43176B	Screen, Latrine, Fire, Water, Weather and Mildew Resis.
LP/P DES 1-82	Body Armor, Small Arms Protective, Aircrewman
LP/P DES 11-80	Body Armor, Combat Vehicle Crewman's, Fragmentation Prot.
LP/P DES 30-73A	Body Armor, Ground Troops, CM and ICM, Frag. Prot. Vest
MIL-S-43926B	Suit, Chemical Protective
MIL-S-44016	Sleeping Bag, Intermediate Cold, Synthetic Filled
MIL-T-82120A(MC)	Tarpaulines: Duck, Ctn; Fire, Water, W/M Resistant
MIL-T-82120(MC)	Tarpaulines: Duck, Ctn; Fire, Water, W/M Resistant
MIL-T-82152A(MC)	Tarpaulines: Duck, Ctn; Vinyl Resin Coated Both Sides
MIL-T-87020(SA)	Trousers, Disposable
MIL-V-43707B	Vest, Ammunition Carrying, For M76 and M203 Launchers
MIL-V-81523A(AS)	Vest, Survival Equipment, Type SV-2A
K-P-146E	Tarpaulines, Ctn Duck, FWWMR
DDD-C-628E	Cover, Mattress
LP/P DES 8-79B	Cover, Helmet, Camouflage

Category 16 (Continued)

Special Military Products

Study Items:

<u>Spec.</u>	<u>Description</u>
LP/P DES 12-78A	Helmet, Ground Troops', Parachutists'
LP/P DES 14-80	Hood, Combat Vehicle Crewman's, Coveralls (Balaclava)

Category 17

Miscellaneous Items

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-B-829J	Bag, Duffel
MIL-B-3108G	Bag, Waterproof, Clothing
MIL-B-3759D	Bag, Personal Effects
MIL-B-43290F	Bag, Flyers Helmet
MIL-C-7554E	Container Kits, Airdrop
MIL-C-10922F	Case, Parachutists Individual Weapons, M-1 50, Adjustable
MIL-H-43595A	Hammock, Jungle, Nyl, M-1966
MIL-H-43879	Hood, Sleeping Bag
MIL-I-43746A	Insect Net, Hat, Sun, Hot Weather
MIL-K-41835	Kit Bag Flyers Ctn Duck Sage Green

### Category 18

#### Tents

##### Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-F-18680B(MC)	Fly, Tent: Fire, Water, Weather, and Mildew Resistant
MIL-T-1110E	Tent, Assembly, M-1942
MIL-T-1712N	Tent, General Purpose, Medium
MIL-T-1926F	Tent, Mountain, Two-Man, Complete
MIL-T-10009F	Tent, Kitchen, Flyproof, M-1948
MIL-T-10035H	Tent, Hexagonal, Lightweight, M-1950
MIL-T-10069F	Tent, Maintenance Shelter, Fire, Water
MIL-T-10168H	Tent, Frame-Type, Insulated, Sectional, With Floor
MIL-T-1111E	Tent, Command Post, M-1945, Fire, Water, W/M Resistant
MIL-T-12354D	Tent, Arctic, 10-Man
MIL-T-14038H	Tent, Gen Purpose, Large
MIL-T-41810F	Tent, Gen Purpose, Small
MIL-T-41812F	Tent Liner Sections, Frame-Type, Maintenance, Medium
MIL-T-41813D	Tent Sections, Frame Type, Maintenance, Medium
MIL-S-3725D	Shelter Half, Tent

### Category 19

#### Mattresses

##### Study Item:

<u>Spec.</u>	<u>Description</u>
MIL-M-1835AF(SH)	Mattresses and Mattress Ticks, Berth, Syn Cell. Rubber

Category 20

Pillows

Study Items:

<u>Spec.</u>	<u>Description</u>
V-P-356D	Pillows, Bed, (Feather)

Category 21

Blankets

Study Item:

<u>Spec.</u>	<u>Description</u>
MIL-B-844L	Blankets, Bed, Wool, Shrink Resistant and Mothproofed

Category 22

Tailored Coats/Jackets

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-C-3771E(MC)	Coat, Man's, Wool, Serge, Green (with Belt)
MIL-C-13990G(GL)	Coats, Men's, Wool and Poly/Wool, Army Green
MIL-C-21085E(MC)	Coats, Women's, Wool, Poly/Wool
MIL-C-29380A(MC)	Coat, Man's, All-Weather, Dress
MIL-C-29381(MC)	Coat, Woman's, All-Weather, Dress
MIL-C-40143E(GL)	Coats, Women's, Wool and Polyester/Wool
MIL-C-43368C(GL)	Coats, Men's, Poly/Wool, Tropical and Wool, Army Green
MIL-C-82186A(MC)	Coat, Man's, Poly/Wool, Green (with Belt)
MIL-J-43982A(GL)	Jacket, Woman's, Gabardine, Army Green 344

Category 23

Accessories

Study Items:

<u>Spec.</u>	<u>Description</u>
MIL-N-49367A	Neck Tab, Women's Shirt: Poly/Wool
MIL-N-41804C	Neckties, Men's, Four-In-Hand
MIL-N-43741(GL)	Neckerchief, Man's, Cotton, Knitted
MIL-N-87042A(SA)	Neckerchief (Acetate Black)
MIL-S-17868B(MC)	Scarf, Neckwear; Wool, Woman's
MIL-S-43317B	Scarf, Neckwear, Woman's, Acrylic
DDD-H-71H	Handkerchief, Man's and Woman's

Category 24

Sheets

Study Item:

<u>Spec.</u>	<u>Description</u>
DDD-S-281K	Sheet, Bed, Cotton, and Polyester/Cotton

Category 25

Towels

Study Items:

<u>Spec.</u>	<u>Description</u>
DDD-T-551K	Towel, Bath, Ctn, Terry

## APPENDIX 2

### DOMESTIC INDUSTRIAL BASE APPAREL COMPANIES 1977 CENSUS OF MANUFACTURES

<u>SIC Code</u>	<u>Description</u>	<u>Number of Companies</u>	<u>Number of Establishments</u>
2331	Women's Blouses	1,297	1,422
2337	Women's and Men's Suits and Coats	1,563	1,677
2339	Women's and Men's Outerwear	1,634	1,802
2381	Fabric Dress and Work Gloves	100	132
2385	Waterproof Outerwear	155	167
2311	Men's and Boys' Suits and Coats	618	737
2321	Men's and Boys' Shirts and Nightwear	667	928
2323	Men's and Boys' Underwear	56	76
2327	Men's and Boys' Separate Trousers	405	514
2328	Men's and Boys' Work Clothing	347	656
2329	Men's and Boys' Clothing NEC(1) Outerwear	552	632
2252	Knit Hosiery NEC	382	415
2254	Knit Underwear Mills	80	92

#### Headwear(2)

20 cap manufacturers producing 50 percent of U.S. production.

#### Tents(3)

15-20 major manufacturers of recreation and camping tents.

15 manufacturers of rental tents able to convert.

- 
- (1) NEC - Not elsewhere classified.
  - (2) Headwear Institute, 1979 estimate.
  - (3) Industrial Fabric Association, 1982.

# APPENDIX AA

## GENERAL APPAREL CATEGORIES DOMESTIC PRODUCTION

<u>Category</u>	<u>SIC Code</u>	<u>Description</u>	<u>Domestic Production Estimate (000's)</u>
1		<u>Shirts--Single Needle</u>	
	23214-07	Men's Sport Shirts-Woven	74,460
	23214-11	Men's Dress Shirts	91,596
	23214-51	Boys' Sport Shirts-Woven	18,276
	23317	Womens, Misses, and Juniors Shirts and Blouses	<u>320,448</u>
			<u>521,064 Units</u>
2		<u>Shirts-Double Needle</u>	
	23281-00	Men's and Boys Work Shirts	<u>42,720 Units</u>
3		<u>Skirts</u>	
	23374	Women's, Misses, and Juniors	<u>70,152 Units</u>
4		<u>Trousers-Single Needle</u>	
	23271-11	Men's Trousers and Sport Slacks	124,011
	23283-21	Men's Jean-Cut Slacks	64,940
	23271-41	Men's Shorts	4,494
	23271-57	Boys' Trousers and Sport Slacks	18,065
	23283-51	Boys' Jeans-Cut Slacks	30,725
	23271-61	Boys' Shorts	5,844
	23295-11	Women's Slacks	<u>160,810</u>
			<u>413,374 Pairs</u>
5		<u>Trousers-Double Needle</u>	
	23283-11	Men's Jeans	188,700
	23283-41	Boys' Jeans	72,888
	23395-31	Women's Jeans	<u>70,406</u>
			<u>331,994 Pairs</u>

**GENERAL APPAREL CATEGORIES  
DOMESTIC PRODUCTION  
(Continued)**

<u>Category</u>	<u>SIC Code</u>	<u>Description</u>	<u>Domestic Production Estimate (000's)</u>
6		<u>Underwear-Knit Shirts</u>	
	22541-21	Men's Undershirts-1/4 Sleeve	198,648
	22541-21	Boys' Undershirts-1/4 Sleeve	59,148
	22541-42	Men's and Boys' Sleeveless Undershirts	43,486
	23212-01	Men's Sport Shirt-Knit	325,800
	23212-24	Boys' Sport Shirt-Knit	153,108
			<u>780,190 Units</u>
7		<u>Underwear-Knit Bottoms</u>	
	22541-62	Knit Shorts	7,416
	22541-61	Men's Briefs	241,740
	22541-71	Boys' Briefs	101,640
	23412-13	Women's, Misses, and Juniors Panties	434,484
			<u>785,280 Units</u>
8		<u>Underwear-Woven Shorts</u>	
	23221-16	Men's and Boys' Boxer Shorts	<u>63,072 Units</u>
9 & 10		<u>Outerwear Parkas and Liners</u>	
	23291	Men's and Boys' Heavy Outerwear	23,688
	23292 pt	Men's and Boys' Light Outerwear	26,988
	23397 pt		
	22533 pt	Women's Outerwear	42,900
	23850	Men's and Boys' Raincoats	44,472
	23850	Women's and Girls Rainwear	6,708
	23371	Women's Juniors and Misses Coats	201,696
	23112	Men's Overcoats	39,120
			<u>385,572 Units</u>

**GENERAL APPAREL CATEGORIES**  
**DOMESTIC PRODUCTION**  
(Continued)

<u>Category</u>	<u>SIC Code</u>	<u>Description</u>	<u>Domestic Production Estimate (000's)</u>
11		<u>Work Clothing</u>	
	23284-01	Men's Work Pants	39,276
	23284-20	Men's Coveralls	13,044
	23284-71	Boys' Workpants and Coveralls	<u>4,572</u>
			<u>56,892 Pairs</u>
12		<u>Knit Socks(1)</u>	
	2252	Men's, Boys', and Childrens Hosiery	<u>1,833,648 Pairs</u>
13		<u>Headwear(4)</u>	
	2352	Emblem Caps	<u>90,000 Units</u>
1979-20 Manufacturers produced 48 million emblem caps at 50 percent of capacity.			
14		<u>Gloves(2)</u>	
	23811	Dress and Semi-dress	38,196
	23812	Workgloves	<u>299,976</u>
			<u>338,172 Pairs</u>
15		<u>Narrow Fabrics(2)</u>	
	22411	Woven Elastic	1,561,609 Lin. Yds.
	22411-8	Ribbons	578,874 Lin. Yds.
	22411-5	Tapes	2,564,552 Lin. Yds.
	22411-3	Webbing	589,131 Lin. Yds.
	22411-11	Elastic Braids	956,662 Lin. Yds.

GENERAL APPAREL CATEGORIES  
DOMESTIC PRODUCTION  
(Continued)

<u>Category</u>	<u>SIC Code</u>	<u>Description</u>	<u>Domestic Production Estimate (000's)</u>
16		<u>Special Military Products</u>	
17		<u>Miscellaneous Items</u>	
18		<u>Tents(5)</u>	
		Recreational and Camping	1,200 Units
		Rental Tent Industry	<u>17 Units</u>
			<u>1,217 Units</u>
19		<u>Mattresses</u>	
	25150-10	Mattresses	14,582 Units
	25153-00	Foundations	8,213 Units
20		<u>Pillows(3)</u>	
	2392	Bed	39,167
		Decorative	<u>22,221</u>
			<u>61,388</u>
21		<u>Blankets(3)</u>	
	Twin	Thermal Woven	43,748 Sq. Yds.
		Other Woven and Nonwoven	<u>112,763 Sq. Yds.</u>
			<u>156,511</u>

Square yards required per twin size blanket = 5  
 $156,511 \div 5 = 31,302$  twin size blankets

**GENERAL APPAREL CATEGORIES  
DOMESTIC PRODUCTION  
(Continued)**

<u>Category</u>	<u>SIC Code</u>	<u>Description</u>	<u>Domestic Production Estimate (000's)</u>
22		<u>Tailored Coats/Jackets</u>	
	2311-1	Men's Suits	14,816
	23113	Men's Sport Coats	17,692
	23114	Boys' Suits	6,281
	23372	Women's, Misses, and Juniors Suits	18,162
	23374-22	Women's, Misses, and Juniors Jackets	<u>20,131</u>
			<u>77,082</u>
23		<u>Accessories</u>	
24		<u>Sheets(2)</u>	
		Crib	7,692
	2211	Flat	121,224
		Fitted	<u>80,028</u>
			<u>208,944</u>
25		<u>Towels(2)</u>	
	2211		<u>539,172</u>

Source: unless specified otherwise, Current Industrial Report 1980.

(1) 1980 Survey and Analysis of Circular Hosiery Machinery in the U.S.

(2) Current Industrial Report 1981.

(3) Cotton Counts Its Customers 1982 Edition.

(4) Headwear Institute 1979 estimate from Mr. Homer Page.

(5) Industrial Fabric Association 1982.

# APPENDIX BB

## SELECTED ITEM GARMENT ANALYSIS

<u>Specification Number</u>	<u>Description</u>
MIL-C-43368C(GL)	Coat, Man's Polyester/Wool Tropical, AG 344, Class 3
MIL-S-40128E(GL)	Skirt, Women's, Wool and Polyester/Wool
MIL-T-44047	Trousers, Combat; Woodland Camouflage Pattern
MIL-C-44048(GL)	Coat, Combat; Woodland Camouflage Pattern
MIL-S-44041(GL)	Shirt, Man's Long Sleeve, Polyester/Cotton, Army Green, 415 Durable Press
MIL-L-43536D	Liner, Cold Weather Coat
MIL-P-43496C	Parka, Extreme Cold Weather
MIL-F-43832B	Field Pack, Combat, Nylon, Large, LC-7

MIL-C-43368C(GL) COAT, MAN'S POLYESTER/WOOL TROPICAL, AG 344, CLASS 3

Garment is only applicable to manufacturers of tailored clothing.

Problems that above manufacturers will likely experience or prefer changes in construction in order of priority include:

1. Front Canvas: Basting the front canvas into position and padding the lapel is a construction technique used by a minority of the current tailored clothing manufacturers. Consider fusing a canvas onto the coat front prior to the sewing operations. This procedure would make the production of this coat applicable to more tailored clothing manufacturers.
2. Undercollar: The current construction uses a two-piece undercollar that is padded in the sewing room. It requires several operations to be performed before the topcollar and undercollar are joined. Consider changing to a pre-padded undercollar. This would eliminate the preparatory operations and would make the garment construction applicable to industry manufacturing.
3. Collar: The collar points are rounded and therefore require hand stitching to join the topcollar and undercollar in this area. Consider changing to a square collar point. This would eliminate the need for hand stitching and make the garment construction more applicable to industry manufacturing.

Other considerations of lesser importance include:

- Pocket Welt Machine used in lieu of conventional single needle pocket making for the lower front pockets and the lining pocket.
- Two thread chainstitch in lieu of lockstitch seams or join lining to facing, make sleeve lining, sew sleeve inseam and sew sleeve elbow seam.
- Lockstitch tack in lieu of hand finishing at vent corners.
- Fusing a nonwoven wigan onto the sleeve cuff in lieu of sewing a woven wigan onto the sleeve seam outlets.

MIL-S-40128E(GL) SKIRT, WOMEN'S, WOOL AND POLYESTER/WOOL

Garment is most applicable to manufacturers of dress and casual slacks requiring open seam construction. Some ladies' sportswear manufacturers may be competitive but this is unlikely because of high fashion and the frequency of style changes required. Construction is probably more common to high quality dress slack manufacturers.

Problems that above manufacturers will likely experience or prefer change in construction in order of priority include:

1. Finishing of raw edges on inside of garment. Allow contractor option of overlocking raw edge with six to ten stitches per inch or pinking 1/8 to 3/16 inches in depth.
2. Make placket and attach zipper: Allow option to attach zipper by inserting zipper tape under overlock seam on side of folded placket, or, further consider allowing side opening edge of back and lining to be inserted under same overlock seam as described above.
3. Back and inside lining
  - a. Eliminate basting lining to back since side edges are overlocked together.
  - b. Make lining side of back with darts pre-sewn and avoid seaming back shell and lining into seams on back darts.
4. Darts  
Allow option of staying across top of darts, thus turning in correct direction, and finishing only with final press in lieu of specified sew and press individual darts.
5. Seams  
Allow option of 301 or 401 stitch on all inside seaming operations.
6. Bottom Hem  
Note: Sample garment was pinked and bound, with binding attached to bottom edge, turned up 2 1/2 inches, and finished with blindstitch.  
  
Allow option of overlock on bottom edge, turn up and blindstitch thus eliminating binding.
7. Band  
Allow option of label being inserted under inside of topstitch band seam.
8. Loops  
Allow option of folding and inserting ends of loops under band seam in lieu of staying ends before inserting under seam.

MIL-T-44047 TROUSERS, COMBAT; WOODLAND CAMOUFLAGE PATTERN

Garment is most applicable to manufacturers of jeans, and most denim jackets and industrial workwear.

Problems that above manufacturers will likely experience or prefer change in construction in order of priority include:

1. Hip Pocket: Cut in welted hip pocket is not common to lapped or fell seam construction. Consider changing to outside patch pockets, with or without bellows, or backs. Flaps on pockets are not considered problem.
2. Fly: The major change that would make the garment more applicable to industry manufacturing would be a zipper fly. This is not considered number one priority because it is understood that buttonhole construction may be an absolute requirement in combat. Adjustments in shape at bottom of right fly would aid any manufacturer, and could be done without affecting strength, durability, or appearance.
3. Band: Basic jean construction on left band at fly opening would be more applicable for above manufacturers. Top buttonhole is through fly and band so appearance would be close to same. With jean construction, band end on left would be finished similar to present right band end.
4. Join sides and join seat: same as #1 on coat.

Other considerations of lesser importance include:

- Chainstitch in lieu of backstitch on attached facing to front and back pockets.
- Make Cargo Pockets - Accept same construction on top hem as on coat. (or) Consider acceptance of same construction as Attach Band or facing stitched to pocket using two needle 401 type stitch with folder.
- Allow one-piece construction on buttonholed fly in lieu of two-piece.

MIL-C-44048(GL) COAT, COMBAT; WOODLAND CAMOUFLAGE PATTERN

Garment is applicable to manufacturers of jeans, most denim jackets, and industrial workwear.

Problems that above manufacturers will likely experience or prefer change in construction in order of priority include:

1. Set in Sleeves, Join Side and Sleeve Seams: Allow contractor options of seaming with four-thread safety stitch (515/SSa-2) and then raise-stitching over seam with two-needle chainstitch (401). (Single-needle chainstitch should be considered.) This method has higher labor cost but will add those contractors to bidding list who do not have in-house capability of fell (lapped) seam (LSc-2) construction.
2. Attach Flaps: Be consistent with spec on trousers by allowing single needle on raised stitch of attached flap.
3. Patches to Sleeves: Again, be consistent with trouser spec and single-needle patches to sleeves.

MIL-S-44041(GL) SHIRT MAN'S, LONG SLEEVE,  
POLYESTER/COTTON, ARMY GREEN, 415 DURABLE PRESS

Garment is most applicable to manufacturers of dress shirts and high-quality sport shirts.

Problems that above manufacturers will likely experience or prefer change in construction in order of priority include:

1. Utilization of semi-automated and automated equipment: It has been KSA's experience that manufacturers of this particular product have, in general, invested more in high technology than any other apparel product line. KSA feels that it would be to Natick's advantage to consider as number one priority, allowing potential contractors to submit for approval, minor changes in shapes of collars, flaps, pockets, cuffs, and possibly front plackets when required. If acceptable, this deviation would allow the manufacturers an opportunity to possibly utilize highly productive equipment without an additional investment to justify or include in cost quotations. Minor changes in shape of a part will often require major investment in equipment modification if an existing automated machine is to be utilized.
2. Pressing: Consider allowing manufacturers the choice of using conventional pressing equipment in lieu of currently required hot head application and avoid additional investments where hot head equipment is not available. Garments would still have to pass the rigid end item test requirements shown in the specifications. It has been KSA's experience that durable press quality can be achieved on most fabrics using a conventional utility press and increasing the pressing cycle time.
3. Per Pocket: Accept 3/8 to 1/2-inch finished hem with either 301 or 401 stitch, across top of pocket.

MIL-L-43536D LINER, COLD WEATHER COAT

Basically a simply constructed garment that is most applicable to manufacturers of lower to medium quality outerwear and possibly some industrial workwear. However, bids would likely be received from any type manufacturer with limitations on availability of buttonhole equipment.

Problems that above manufacturers will likely experience or prefer change in construction in order of priority include:

1. Attach Binding - Approve chainstitch as optional.
2. Consider snaps in lieu of buttonholes as per parka.

MIL-P-43496C PARKA, EXTREME COLD WEATHER

Garment is applicable only to manufacturers of medium quality outerwear or limited type industrial shirts. Construction requirements are within a limited range and differences will depend on individual manufacturer's methods.

MIL-F-43832B FIELD PACK, COMBAT, NYLON, LARGE, LC-7

Specialty item that will be limited to manufacturers of comparable products such as backpacks, tents, golf bags, lightweight luggage, bandoliers, etc.

# APPENDIX CC

## TEXTILE AND APPAREL PLANT CLOSINGS SOUTH CAROLINA (SEPTEMBER 79 - JUNE 82)

<u>Company</u>	<u>Location</u>
Abney Mills	Woodruff
Graniteville Company	Williston
Milliken and Company Excelsior Plant	Union
Beaufort Shirtmakers	Beaufort
Southern Worsted Mills	Greenville
J. P. Stevens Aragon Plant	Rock Hill
Grendel Corporation Poinsett Mill	Greenville
Newberry Mills	Newberry
Ruth's Fashions	Greenville
Collins and Aikman	Cowpens
Georgetown Textile	Andrews
Southern Stitchmasters	Hamer
Florence Manufacturing Company	Florence
Mount Vernon Mills	Columbia
Spring Mills Gayle Plant	Chester
J. P. Stevens Apalache Plant	Greer
M. Lowenstein Pacific Home Fashions	Orangeburg
J. P. Stevens Riverine Plant	Taylors
J. P. Stevens	Jonesville
J. P. Stevens Republic #1	Great Falls
J. P. Stevens Republic #2	Great Falls
Quality Mills	York
Union Textile/Thor Fibers	Union
Monsanto	Blacksburg
J. P. Stevens Taylors #1 Plant	Taylors
Riegel Textile	Waihalla
J. P. Stevens Industrial Plant	Rock Hill
Oneita Knitting	Lane
Plusa, Inc.	Jamestown
Anderson Hosiery	Prosperity
Prices Apparel	Dillon

APPENDIX CC

TEXTILE AND APPAREL PLANT CLOSINGS  
SOUTH CAROLINA (SEPTEMBER 79 - JUNE 82)  
Continued

<u>Company</u>	<u>Location</u>
Highlander Manufacturing	Blackville
EMC	Easley
Jonathan Logan Butte Knit	Spartanburg
Jasta Manufacturing	Branchville
Blue Bell - Sedgfield Division	Westminister
Pacific Home Fashions	Orangeburg
Ryco Knitting	Simpsonville
Walterboro Dress	Walterboro

APPENDIX CC  
 TEXTILE PLANT CLOSINGS  
 GEORGIA  
 (SEPTEMBER 80 - SEPTEMBER 82)  
 (Continued)

<u>Company</u>	<u>Location</u>
American Mills	Monticello
Canton Textile Mills	Canton
Elberton Mills, Division United Merchants & Manufacturers	Elberton
Fulton Cotton Mills (later Fabrics America)	Atlanta
Goodyear Tire and Rubber Company (Textile Tire Cord)	Rockmart
Goodyear Tire and Rubber Company (Textile Tire Cord)	Cedartown
ITT Rayonier-Lumber	Camak
Milliken & Company, Calumet Plant	LaGrange
Modern Fibers	Calhoun
Modern Fibers	Fitzgerald
Rosewood Knitting Mills	Martinez
Rothschild Mills	Acworth
Rothschild Mills	Columbus
Scottdale Mills	Scottdale
Shamrock Mills	Marietta
Trend Carpet Mills	Rome
Unique Knitting Mills	Acworth

APPENDIX CC  
TEXTILE AND APPAREL PLANT CLOSINGS  
NORTH CAROLINA  
(JANUARY - JULY 1982)

(Continued)

<u>Company</u>	<u>Location</u>
Blush Lingerie	Elkin
Kenneth Home Fashion	Matthews
Burlington Garment Company	Burlington
Skyland Textile, Inc.	Forest City
Rainbow Classics Manufacturing	Angier
Specialty Dyers	Concord
Burlington Industries	Centerville
ATHTEX	Lowell
Burlington Industries, Phenix Plant	Kings Mountain
Blue Bell, Wrangler Womenswear	Eethel
H & S Processors, Inc.	Crouse
Guilford Mills, Lowell Plant	Lowell
Heritage Quilts, Inc.	Bryson City
Heritage Quilts, Inc.	Sylva
Blue Bell, Wrangler Division	Spruce Pine
Blue Bell, Wrangler Division	Tipton Hill
Blue Bell, Wrangler Division	Micaville
Dan River, Mebane Plant	Mebane
Dixie Yarn Company	Cedar Falls
Lynx Hosiery, Inc.	Mount Airy
Burlington Industries, Goldsboro Plant	Goldsboro
Texfi Industries, Inc.	Fayetteville
Crompton-Pilot Mills	Raleigh
Belding Lily Company	Shelby
Unifi, Inc.	Burlington
Block Industries, Inc.	Benson
Craftex, Inc.	Farmville
Carolina Machinery, Rando Corporation	Charlotte
Blue Bell, Wrangler Division	Lenoir
Blue Bell, Wrangler Division	Taylorsville
Burlington Industries, Cascade Weaving	Mooreville
Mount Vernon, Lanier Plant	Clarkton

## APPENDIX DD

### RECENT U.S. TEXTILE MILL PURCHASES OF FOREIGN EQUIPMENT

J.P. Steven, Seneca, S.C., purchases 100 TecnoMaTex TMT 80 filling accumulators for Sulzer weaving machines from Lang Ligon & Co.

Hawyard-Schuster Woolen Mills Inc. (East Douglas, Mass.), Newtex Industries Inc. (Victor, N.Y.), and Mastercraft Corp. (Spindale, N.C.) purchase Dornier rigid-rapier weaving machines from Batson Yarn & Fabrics Machinery Group.

Cone Mills, Greensboro, N.C., purchases 208 TMT 80-filling accumulators for wide-filling, mix-Sulzer weaving machines, and 213 TMT 80 accumulators for wide Sulzer, multicolor PU looms, for its Minneola Plant, Gibsonville, N.C., from Lang Ligon & Co.

Dan River Inc., Greenville, S.C., purchases 186-Aerofil air-jet-loom, conversion units from Leesona Corp. Purchase completes a three-year trial installation at the Greenville Plant, Woodside Div.

Walton Mills Inc., Monroe, Ga., orders 162 TecnoMaTex 80 filling accumulators from Lang Ligon. They will go on new Saurer 400 weaving machines now being installed in new facilities under construction.

Springs Industries plans to invest \$175-million in new textile technology. The first phase is to replace 4,500 looms in its sheeting and apparel plants with \$80-million worth of new equipment.

Burlington Industries plans a multi-million dollar modernization program that includes a \$25-million project at its Asheville and Cramerton (N.C.) plants. The project will convert the Asheville Plant to 100% air-jet weaving and modernize the Cramerton Plant equipment.

Frank Ix & Sons Inc., Lexington, N.C., purchases over 100 TecnoMaTex TMT 80 filling accumulators for its Saurer and Dornier looms from Lang Ligon & Co.

Dan River Inc., Danville, Va., received the 10,000th Staubli KR rotary dobby from Staubli KG and Sulzer Bros., in honor of Dan River's centennial and in recognition of its pioneering role in producing shirting fabrics on Sulzer weaving machines.

M. Lowenstein & Sons, Lyman, S.C., has purchased 102 Sulzer weaving machines to be installed at its Joseph Lyons Plant in Anderson, S.C., to produce sheeting.

Cone Mills Corp., Greensboro, N.C., has purchased 328 Tecnomatex TMT-80 filling feeders for its Salisbury (N.C.) Plant to be used on Saurer 400 looms producing medium-weight apparel fabrics.

Dorr Woolen Mills, Guild, N.H., has purchased additional Dornier rigid-rapier weaving machines from Batson Machinery Inc.

Cone Mills, Greensboro, N.C. bought 328 TMT 80 filling feeders from Tecnomatex of Switzerland for its Salisbury (N.C.) Plant.

Thomaston Mills, Thomaston, Ga., buys 32 Nuovo Pignone shuttleless looms; an Automatic Materials Handling chute feeding system; 16 Americard II cards from John D. Hollingsworth; and Zinser Model 720, 2-del drawing frames with automatic doffers.

Wendell Fabrics Corp., Blacksburg, S.C., buys an undisclosed number of Dornier weaving machines, from Batson Yarn & Fabrics Machinery Group.

Blumenthal Mills Inc., Marion, S.C., purchases 90 TecnoMaTex TMT 80 filling accumulators from Lang Ligon & Co.

Beacon Mfg. Co., Swannanoa, N.C., installs 74 TecnoMaTex TMT 80 filling accumulators on TW-11 Sulzer weaving machines in its Westminster (S.C.) plant from Lang Ligon & Co.

Dan River, Greenville, S.C., has installed a Tsudakoma high-speed warper, single-end sizing machine and rebeaming machine at its Haynsworth Plant. The machines were purchases from Tekmatex Inc.

Monsanto Co.'s Dalton (Ga.) Plant purchases 40 Kamitsu Model ET-1012s take-up winders from Izumi Int'l.

Thomaston Mills, Thomaston, Ga., buys 32 Nuovo Pignone shuttleless looms; an Automatic Materials Handling chute feeding system; 16 Americard II cards from John D. Hollingsworth; and Zinser Model 720, 2-del drawing frames with automatic doffers.

Coats & Clark Inc., Albany, Ga., purchases several 160-spindle Barmag WT1E two-for-one twistors for filament yarns.

Comtwist Inc., Mebane, N.C. purchases Murata 2-for-1 twistors for its new commission-throwster operation which came on stream Sept. 1.

L.W. Packard & Co., Ashland, N.H., purchases four woolen spinning frames from American Duesburg Bosson.

Coats & Clark Inc. has purchased 22 silver-fed Super High Draft worsted ring spinning frames from Officine Gaudino.

Carleton Woolen Mills Inc., Winthrop, Me., buys CBP woolen spinning frames from American Duesberg Bosson Inc.

Martin Processing, Martinsville, Va., buys additional Mackie spinning frames from Tex America.

Mayfair Mills, Pickens, S.C., purchases eight Rovematic Model FB-1D roving frames; Harriet & Henderson Yarns Inc., Henderson, N.C., buys 12 Rovematic Model FB-1D roving frames; Maqatex SA, Puebla Pue., Mexico, purchases six Spinomatic Model SCB-17E cotton system-ring-spinning frames and a Versamatic Model DE-8C drawing frame from Platt Saco Lowell.

Kendall Co., Boston, Mass., and Freundenberg & Co., Weinheim, Germany, announced formation of a U.S. joint venture to manufacture and market nonwoven spunbonded fabrics in North America.

Lutravil Spinnvlies, a Kaiserslautern, W. Germany spunbondeds manufacturer, is planning a joint venture with Kimberly Clark "somewhere in the Carolinas." The initial single line will produce spunbonded polyester nonwovens for automotive carpet backings and bases for roofing felt materials.

Shuford Mills, Hickory, N.C., buys 10 Versamatic Model DF-11A drawing frames for its Hickory and Hildebran Plants from Platt Saco Lowell.

Thomaston Mills, Thomaston, Ga., buys 32 Nuovo Pignone shuttleless looms; an Automatic Materials Handling chute feeding system; 16 Americard II cards from John D. Hollingsworth; and Zinser Model 720, 2-del drawing frames with automatic doffers.

Duro Finishing Corp., Fall River, Mass., purchases the first Goller flash-ager range with washers in the United States from Kratex Textile Machine Sales & Service Inc.

The Defense Personnel Support Center, Philadelphia, Pa., purchases a third Versamatic semi-decating machine from Gessner Co.

Dan River Inc. is phasing out operations at its Greenville (Ala.) corduroy plant, with permanent shutdown scheduled for Nov. 1.

Bibb Co. closed its Hanover (Pa.) Plant, July 15. The carpet yarn plant employed 200 workers.

J.P. Stevens & Co., is closing its Jonesville (S.C.) Plant and the Republic #1 Plant in Great Falls, S.C. Jonesville employs about 225 in its industrial fabrics production, while Republic #1 produces apparel fabrics and employs about 200.

Burlington Industries Inc. is phasing out its Cascade Weaving plant in Mooresville, N.C. over the next two or three months. The plant employs 375 workers.

Celanese Corp. New York, N.Y., closes its Cumberland, Md., acetate-triacetate plant for three months because of "poor demand for tricot yarns." Two other acetate plants--at Narrows, Va. and Rock Hill, S.C.--are not affected by the Cumberland closing, the company says.

Missbrenner Prints Inc., Clifton, N.J. purchases a Reggiani 12-color rotary screen printing machine.

Textile Printing & Finishing Co., Lebanon, Pa., installs a 12-color, 72-in. rotary printing machine from Johannes Zimmer Co.

Thomaston Mills, Thomaston, Ga., buys 32 Nuovo Pignone shuttleless looms; an Automatic Materials Handling chute feeding system; 16 Americard II cards from John D. Hollingsworth; and Zinser Model 720, 2-del drawing frames with automatic doffers.

Greenwood Mills, Greenwood, S.C., buys four Marzoli automatic bale openers for its Durst Plant and Mathews No. 2 Plant from Cromtex.

Thomaston Mills, Thomaston, Ga., buys 32 Nuovo Pignone shuttleless looms; an Automatic Materials Handling chute feeding system; 16 Americard II cards from John D. Hollingsworth; and Zinser Model 720, 2-del drawing frames with automatic doffers.

Clinton Mills, Clinton, S.C., purchased 32 Crosrol Mark 3/80 single high-production cards for intimate blend of cotton-polyester at its Lydia Plant.

Macfield Texturing, Burlington, N.C., purchases additional high-speed texturing machines Model FK6L-10 for its nylon operations from American Barmag.

Nantong Textile Industry Corp., Nantong, China, will put a new 4,700-ton polyester POY plant on stream in 1984. This is the third major contract for Zimmer AG in China over the last five years.

Tsusuki Spinning Co., Nagoya, Japan, is installing 96 air-jet weaving machines from Nissan.

Chung Shing Textile Co., Taiwan, plans a fifth expansion to produce 20,000 ton/yr polyester staple fiber and 6,000 ton/yr polyester chips.

Namsun Textile Co., Korea, buys 63,000 spindles of Type 802 Spinomatic spinning frames from Platt Saco Lowell.

Nakano Shokufu, an Osaka, Japan, textile group, orders 266 Saurer 500 two-phase rapier weaving machines, replacing 1000 conventional weaving machines, from Adolph Saurer Ltd.

# APPENDIX EE

INDUSTRY SHIPMENTS FOR ALL MANUFACTURING INDUSTRIES: 1958 to 1979  
(in millions of constant 1972 dollars)

1972 Code	SIC Title	1958	1963	1967	1972	1975	1976	1977	1978	1979
2211	WEAVING MILLS, COTTON	3389.1	3713.0	3952.1	2660.6	2116.3	2295.0	2605.1	2330.5	2519.3
2221	WEAVING MILLS, SYNTHETICS	1271.2	1803.5	2549.6	3856.6	3682.0	4271.5	4678.9	4386.9	4644.3
2231	WEAVING & FINISHING MILLS, WOOL	1072.7	1125.5	1126.0	450.1	424.0	464.7	424.2	427.7	420.4
2241	NARROW FABRIC MILLS	408.5	498.0	548.1	566.2	417.6	482.2	471.0	472.6	503.5
2251	WOMEN'S HOSIERY EXC SOCKS	150.0	520.6	755.6	984.7	757.2	666.2	870.3	1068.3	1171.6
2252	HOSIERY NEC	418.6	448.4	564.7	600.6	634.3	678.2	746.6	790.8	753.8
2253	KNIT OUTERWEAR MILLS	865.5	1125.4	1350.1	1703.8	1759.9	1815.7	1886.8	1808.8	1652.4
2254	KNIT UNDERWEAR MILLS	370.0	421.2	493.1	544.6	516.5	519.1	455.0	498.4	504.8
2257	CIRCULAR KNIT FABRIC MILLS	201.3	382.2	777.7	2808.8	2276.6	2226.5	2507.4	2273.0	2321.8
2258	WARP KNIT FABRIC MILLS	164.1	305.1	501.2	987.7	1042.7	1243.1	1249.0	1371.0	1366.0
2259	KNITTING MILLS NEC	35.1	48.1	44.0	73.1	102.7	85.9	70.1	74.8	73.8
2261	FINISHING PLANTS, COTTON	1058.9	1202.9	1135.8	623.3	482.1	500.9	474.1	504.7	479.7
2262	FINISHING PLANTS, SYNTHETIC	347.6	476.0	718.2	1365.2	1590.4	1654.9	1815.9	1936.3	1658.5
2269	FINISHING PLANTS NEC	197.2	264.9	347.1	637.3	394.5	490.4	625.5	647.1	471.5
2271	WOVEN CARPETS & RUGS	350.2	331.7	254.1	212.3	124.2	140.9	88.1	89.5	123.2
2272	TUFTED CARPETS & RUGS	242.2	672.0	1362.8	2775.2	2492.2	2845.8	3585.0	3769.7	4212.0
2279	CARPETS & RUGS NEC	50.0	27.3	84.5	157.9	83.7	85.8	91.3	90.1	63.8
2281	YARN MILLS, EXC WOOL	928.7	1154.7	1484.8	2248.3	2086.5	2231.5	2488.7	2574.1	2454.9
2282	THROWING & WINDING MILLS	185.1	342.5	608.1	1427.6	1425.0	1862.6	1606.5	1615.0	1603.9
2283	WOOL YARN MILLS	291.9	411.5	382.9	221.4	162.9	170.6	136.0	128.4	202.9
2284	THREAD MILLS	258.2	255.0	319.9	345.4	311.2	333.6	371.6	371.6	374.8
2291	FELT GOODS, EXC WOVEN FELTS & HATS	101.2	136.4	132.9	146.5	133.4	145.0	152.5	150.7	168.5
2292	LACE GOODS	79.3	64.8	80.2	47.1	20.0	24.1	31.9	28.6	40.9
2293	PADDING & UPHOLSTERY FILLING	174.9	193.2	204.0	134.6	112.2	113.1	133.4	150.1	154.7
2294	PROCESSED TEXTILE WASTE	110.0	101.2	104.0	133.8	112.7	137.4	145.4	173.7	189.1
2295	COATED FABRIC, NOT RUBBERIZED	309.0	532.6	751.4	865.8	708.9	842.2	735.9	659.1	670.0
2296	TIRE CORD & FABRIC	374.6	400.5	466.9	685.1	569.9	616.8	939.9	965.5	936.3
2297	NONWOVEN FABRICS	108.5	133.6	183.9	397.4	406.4	468.5	595.3	786.6	804.5
2298	CORDAGE & TWINE	178.3	157.4	198.3	191.0	173.8	173.4	196.2	206.2	207.6
2299	CANVAS & RELATED PRODUCTS	180.8	193.0	303.3	276.4	249.6	251.6	392.3	450.6	385.4
2823	CELLULOSE MAN-MADE FIBERS	756.0	807.7	960.4	589.5	657.5	701.9	737.9	773.3	807.9
2824	ORGANIC FIBERS, NONCELLULOSIC	500.6	1209.6	1985.5	3638.9	4767.0	5064.5	5805.0	6229.5	6782.5
3552	TEXTILE MACHINERY	524.0	728.4	895.2	823.7	732.4	722.7	636.1	626.5	613.9
3636	SEWING MACHINES	116.4	124.9	137.1	159.6	149.4	182.2	201.1	197.6	222.5

# APPENDIX FF

## LIST OF CONTRIBUTING AGENCIES AND ASSOCIATIONS CONTACTED FOR REPORT (see List of Abbreviations, Volume 1)

ATMA	CLEMSON
ATMI	FPI
MMFPA	WQMA
NI	DPSA
NTA	ASA
PCST	DARCOM
FIT	TSARCOM
SBA	TRADOC
AAFES	NSC
GSA	DCSPER
ASTM	DoD CONGRESSIONAL LIAISON
AAMA	TEXTILE ECONOMICS BUREAU
NC STATE	SLIDE FASTENER ASSOCIATION
NAHM	

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